…the innovative hot water solution.

Greater comfort using less energy

Electric water heating

Instant hot water · Solar thermal energy · Storage hot water · Instant boiling water

Made in Germany

CLAGE
„wirtschaftlich warmes Wasser.
CLAGE GMBH
PIROLWEG 1–5

…the innovative hot water solution.

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Experience · Innovation · Energy efficiency

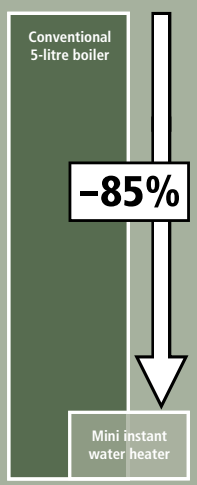
More than 50 years ago Claus-Holmer Gerdes started selling small instantaneous water heaters for hot water supply at individual points of use. Today, CLAGE is one of the leading manufacturers of electric instantaneous water heaters and a specialist in innovative hot water technology. At the company headquarters located in the Hanseatic city of Lüneburg in Northern Germany, the dedicated workforce develop and produce efficient, reliable products. CLAGE products are characterised by good design, a high level of user convenience and economical operation. At the modern production facilities the highest standards of quality and the reliability synonymous with "Made in Germany" are assured. Numerous awards in Germany and other countries attest to the high quality of CLAGE products.

2896/QM/08.98 VDE Certified Management System DIN EN ISO 9001:2008

Mini instant water heaters for hand-wash basins and kitchen sinks

These instantaneous water heaters are the most efficient way to provide hot water at the point of use. The water is not pre-heated, but is heated instantaneously at the wash basin or sink as it flows through the unit. This is a resolute approach to eliminate standing heat losses.

In comparison with conventional storage water heaters no power is consumed while in stand-by. Additional water savings are also achieved because the flow rate is set at an economical level. A small instantaneous water heater can save up to 85 % energy in comparison to a small storage water heater.



Small instantaneous water heaters – huge savings

Instantaneous water heaters do not consume any stand-by power. They heat the water only when needed and achieve additional water savings as the flow rate is set to an economic level. That adds up to energy savings of up to 85 % in comparison with conventional storage water heaters. In buildings with several washing facilities total savings can be considerable.

An instantaneous water heater MH 3 (3.5 kW power rating delivering 2 l/min) was compared with a 5-litre storage heater (power consumption in standby: 0.25 kWh / d, delivering 5 l/m) in the washroom of an office building with the following parameters: Daily use frequency: 10 times; duration of use: 10 seconds respectively; temperature at point of use: approx. 38 °C; number of days in use: 230 days (source: CLAGE).

The clever way to heat water for handwashing

MDX 3 · MDX 4 · MDX 6 · MDX 7

Electronic instantaneous water heater MDX 3..7

If you wish to enjoy hot water at a hand wash basin and conserve energy at the same time then the MDX is the best choice you can make. Sophisticated electronics automatically regulate the output power to ensure the desired temperature is not exceeded at the point of use. That means: Turn on the tap and hot water flows at the perfect temperature!

- Mini-sized, electronically controlled under-sink instantaneous water heater to supply hot water to a wash basin
- Electronic power control adjusts to compensate for inlet pressure and temperature variations
- Outlet temperature and flow rate are preset inside the appliance (factory setting approx. 38 °C)
- Bare wire technology IES® achieves maximum efficiency plus the fastest possible heat up time
- Supplied complete with special tap nozzle with integrated flow regulator for fitting in tap threads M22 / M24 and a connection set (T-piece and flexible pressure hose $^3/_8$") for an angle valve
- Performance: MDX 3: 3.5 kW 230 V (approx. 2.0 l / min 38 °C)
  MDX 4: 4.4 kW 230 V (approx. 2.5 l / min 38 °C)
  MDX 6: 5.7 kW 230 V (approx. 3.3 l / min 38 °C)
  MDX 7: 6.5 kW 400 V (approx. 3.7 l / min 38 °C)
- Dimensions (H × W × D): 13 × 18.5 × 8 cm

IES SYSTEM · SOLAR ready · Innovationspreis Architektur und Technik

MDX LUMINO

Colourful and highly convenient: Smart instantaneous water heater and a sensor tap

The new under-sink unit MDX Lumino combines convenience with energy efficiency in designer washrooms. As well as regulating the heating element of the instantaneous water heater the water-saving sensor tap indicates the temperature of the water by means of a coloured LED ring.

The temperature is set using a lever on the side of the tap, eliminating the need to add water. The water is heated in the instantaneous water heater to precisely the ideal temperature desired at the point of use. The water flows only when the user's hands are within the sensing range of the infra-red detector.

Efficient, attractive and economic

MDH 3 · MDH 4 · MDH 6 · MDH 7

Instantaneous water heater MDH 3..7

Installed together with a standard tap the small instantaneous water heater MDH turns on as soon as the hot water valve opens in the tap. Warm water flows immediately in a pleasantly soft stream for as long as desired. The flow of water depends on the rating of the heater.

- Mini-sized, hydraulically controlled under-sink instantaneous water heater to supply a single point of use
- The heating element is activated automatically as soon as water begins to flow through the unit
- Bare wire technology IES® achieves maximum efficiency plus the fastest possible heat up time
- Supplied complete with special tap nozzle with integrated flow regulator for fitting in tap threads M22 / M24 and a connection set (T-piece and flexible pressure hose 3/8") for an angle valve
- Performance: MDH 3: 3.5 kW 230 V (approx. 2.0 l / min Δt 25 K)
  MDH 4: 4.4 kW 230 V (approx. 2.5 l / min Δt 25 K)
  MDH 6: 5.7 kW 230 V (approx. 3.3 l / min Δt 25 K)
  MDH 7: 6.5 kW 400 V (approx. 3.7 l / min Δt 25 K)
- Dimensions (H × W × D): 13 × 18.5 × 8 cm

Efficient and powerful, and out of sight

In comparison with conventional storage water heaters it is possible to install the small instantaneous water heater below the basin so that it is as good as invisible from view.

Quick and easy to install

MH 3 · MH 4 · MH 6 · MH 7

Instantaneous water heater MH 3..7

The small, vented instantaneous water heater MH is the right choice if you wish to replace conventional vented storage water heaters used in conjunction with open outlet taps. This economic appliance is quickly installed and eliminates costly standby heat losses at each basin or sink.

- Mini-sized, hydraulically controlled under-sink instantaneous water heater to supply a single point of use
- The heating element is activated automatically as soon as water begins to flow through the unit
- Bare wire technology IES® achieves maximum efficiency plus the fastest possible heat up time
- Non-pressure water heater for one outlet with open-outlet (vented) tap
- Supplied completely with special tap nozzle with integrated flow rate regulator for fitting in tap threads M22 / M24
- Performance: MH 3: 3.5 kW 230 V (approx. 2.0 l / min Δt 25 K)
  MH 4: 4.4 kW 230 V (approx. 2.5 l / min Δt 25 K)
  MH 6: 5.7 kW 230 V (approx. 3.3 l / min Δt 25 K)
  MH 7: 6.5 kW 400 V (approx. 3.7 l / min Δt 25 K)
- Dimensions (H × W × D): 13 × 18.5 × 8 cm

CLAGE taps for open-outlet instant water heaters

Based on many years of experience CLAGE is able to offer a wide selection of high-quality fittings for use in open outlet installations with small instantaneous water heaters. Our range includes single lever, touch-free sensor taps and standard mixers.

AEN

END

EKM

EKA

SNM

Instantaneous water heater sets with tap

M 3 / ENM

M 3 / SNM · M 4 / SNM

M 3 / SMB · M 4 / SMB · M 7 / SMB

MH 7-O with SME

M 4 / BGS · M 6 / BGS · M 7 / BGS

Complete systems in a set comprising a small instantaneous water heater MH and an open outlet tap for vented installation are a recommendable choice. Straightforward installation, safe and reliable to operate and economic into the bargain.

Undersink unit M 3 / ENM with single-lever mixer tap

· Performance: M 3 / ENM: 3.5 kW 230 V (approx. 2 l / min Δt 25 K)

Undersink unit M 3..4 / SNM with two-handle mixer tap

· Performance: M 3 / SNM: 3.5 kW 230 V (approx. 2.0 l / min Δt 25 K)
M 4 / SNM: 4.4 kW 230 V (approx. 2.5 l / min Δt 25 K)

Oversink unit M 3..7 / SMB with two-handle mixer tap

· Performance: M 3 / SMB: 3.5 kW 230 V (approx. 2.0 l / min Δt 25 K)
M 4 / SMB: 4.4 kW 230 V (approx. 2.5 l / min Δt 25 K)
M 7 / SMB: 6.5 kW 400 V (approx. 3.7 l / min Δt 25 K)

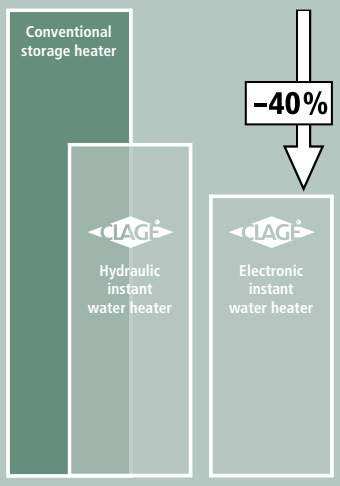
Shower unit M 4..7 / BGS with two-handle mixer tap and shower set

This electric shower unit combines value for money with a smart appearance, ease of use and ease of installation. It is a smart solution for those efficient home comforts, for example in garden sheds, loft and cellar conversions.

· Performance: M 4 / BGS: 4.4 kW 230 V (approx. 2.5 l / min Δt 25 K)
M 6 / BGS: 5.7 kW 230 V (approx. 3.3 l / min Δt 25 K)
M 7 / BGS: 6.5 kW 400 V (approx. 3.7 l / min Δt 25 K)

Compact instantaneous water heaters for a wide variety of applications

Thanks to their compact design and high-performance characteristics instantaneous water heaters from the C-series are suitable for a wide variety of applications. Depending on the climatic and technical conditions in the country of use instantaneous water heaters are suitable for supplying hot water to wash basins, kitchen sinks and showers. There are single and three-phase appliances available to meet requirements. No matter which appliance is chosen, instantaneous water heaters always heat the water in an exemplary, energy-efficient manner for user convenience.



You can count on less

Instantaneous water heaters heat the water directly at the point of use – and only when the water flows. That means in contrast to conventional storage heaters no hot water is stored. That avoids expensive heat losses. As a result instantaneous water heaters are more economic than conventional storage heaters, although they have a three-phase power connection. Electronically controlled instantaneous water heaters are particularly energy efficient, because they automatically adapt the power output to actual requirements.

The electronic instantaneous water heater CFX-U with a set power output of 11 kW (flow rage: 5 l/min at 45 °C) was compared with a 5-litre storage heater (standby power consumption 0.25 kWh / d at 65 °C) and a requisite mixed-water flow of 7.5 l/min in a three-person household with the following parameters: duration of use per person per day: two minutes: temperature at point of use: 45 °C; number of days in use: 340 days (source: CLAGE).

Robust and versatile

CRX 6 · CRX 7 · CRX 9

Electronic instantaneous water heater CRX 6..9

Thanks to its compact design and tubular heating system this electronic instantaneous water heater is suitable for a wide range of applications in certain countries. The desired outlet temperature is set on the control panel. The electronics regulate the heat output to the desired temperature, and in doing so ensure energy-saving use.

- Electronically controlled instantaneous water heaters in a compact design for single or multipoint applications
- Control panel and LED display to select the desired temperature between 35 °C and 55 °C
- Variable water connection for wall-mounted or flush-mounted installation
- Performance:
  CRX 6: 6.6 kW 230 V (approx. 3.5 l / min 35 °C to 55 °C)
  CRX 7: 7.2 kW 220 V (approx. 4.0 l / min 35 °C to 55 °C)
  CRX 9: 8.8 kW 230 V (approx. 5.0 l / min 35 °C to 55 °C)
- Dimensions (H × W × D): 33 × 21 × 9 cm

CRH 6 · CRH 9

Instantaneous water heater CRH 6 / 9

This standard instantaneous water heater turns on automatically to full power as soon as sufficient water flows through the robust tubular heating system. The outlet temperature depends on the respective amount of water and the inlet temperature. Equipped with concealed water connections the compact case is suitable for both wall mounted and the optically more appealing flush-mounted installation variations.

- Hydraulically controlled instantaneous water heaters in a compact design
- Instantaneous water heater automatically activates full heating power
- Variable water connection for wall-mounted or flush-mounted installation
- Performance: CRH 6: 6.6 kW 230 V (approx. 3.8 l / min Δt 25 K)
  CRH 9: 8.8 kW 230 V (approx. 5.0 l / min Δt 25 K)
- Dimensions (H × W × D): 33 × 21 × 9 cm

New intelligent energy efficiency

CEX 9 ELECTRONIC MPS®

Electronic instantaneous water heater CEX 9 ELECTRONIC MPS®

With its electronic control the CEX 9 ELECTRONIC MPS® guarantees an energy-efficient supply of hot water. The water is heated to the pre-set temperature as it flows through the unit. Users are able to select the temperature at the touch of a button on the LCD control panel. The panel is equipped with two fixed-value keys, which are factory set to 35 °C and 48 °C.

- Electronically controlled instantaneous water heater for single or multipoint applications
- TWIN TEMPERATURE Control TTC® allows the user to precisely set the outlet temperature to the desired degree between 20 °C and 55 °C up to the full rated power output
- Bare wire technology IES® achieves maximum efficiency plus the fastest possible heat up time
- Multiple Power System MPS®: Power settings set during installation 6.6 or 8.8 kW 230 V (approx. 5 l / min 20 °C to 55 °C)
- Dimensions (H × W × D): 29.4 × 18 × 11 cm

TWIN TEMPERATURE

IES SYSTEM MPS SOLAR READY

Remote control optional

Programmable operation keys
Factory settings: 35 °C and 48 °C

Temperature and menu selection

User-friendly two-key control panel and integrated LC display

Easy-to-read display
The two-key control panel with large integrated LC display allows the user to set the temperature to the exact degree between 20 °C and 55 °C.

Two touch-keys to set individual desired temperatures
Individual fixed values are stored using the two programming keys. It is also possible to activate a temperature limit as well as retrieve displayed operating and servicing values.

Compact power – wide variety of applications

CBX 11 · CBX 13

Electronic instantaneous water heater CBX 11 / 13

Thanks to its compact design and connection concept this electronic instantaneous water heater is suitable for a wide variety of applications. The desired outlet temperature is set using two membrane keys on the control panel. The unit heats the water only when it is required. This approach resolutely eliminates heat losses.

- Electronically controlled instantaneous water heater in a compact design for single or multipoint applications
- Control panel and LED display to select the desired temperature between 35 °C and 55 °C
- Bare wire technology IES® achieves maximum efficiency plus the fastest possible heat up time
- Variable water connection for wall-mounted or flush-mounted installation
- Performance:
  CBX 11: 11 kW 400 V (approx. 5 l / min 35 °C to 55 °C)
  CBX 13: 13.5 kW 400 V (approx. 6 l / min 35 °C to 55 °C)
- Dimensions (H × W × D): 33 × 21 × 9 cm

IES SYSTEM

Also suitable for wall taps

The water pipes are concealed behind the plaster on the wall.
The CBX instantaneous water heater guarantees an economic supply of hot water. The electronic device is powerful enough to supply hot water to a double wash basin or a small shower. The connections to the water supply remain aesthetically concealed.

1
48
2

Smart under-sink solution in the kitchen

CFX-U FUNKTRONIC MPS®

Electronic instantaneous water heater CFX-U FUNKTRONIC MPS®

The new instantaneous water heater CFX-U is a particularly clever and energy-efficient way to deliver hot water to the kitchen sink. The compact unit requires very little space when installed below the kitchen sink, whilst the user is able to set the temperature at his convenience using the ingenious remote control. The temperature at the point of use is set precisely; thus, avoiding heat loss caused by mixing hot and cold water.

- Compactly designed, electronically controlled, under-sink instantaneous water heater with remote control
- Temperature setting between 20 °C and 60 °C via remote control
- Precise temperatures due to TWIN TEMPERATURE control TTC® up to the capacity of the appliance
- Electronic safety system with air bubble detection
- Easy installation under the kitchen sink due to small dimensions and outside $^{3}/_{8}$" water connections for installation directly to the tap connecting hose
- Supplied with power cable for 3-phase power supply for easy installation without opening the appliance
- Multiple Power System MPS®:
  Power settings set during installation
  11 or 13.5 kW 400 V (approx. 5 l / min 20 °C to 60 °C)
- Dimensions (H × W × D): 29.4 × 18 × 11 cm

TWIN TEMPERATURE

IES SYSTEM mps SOLAR ready

Remote control included

Programmable operation keys
Factory settings: 35 °C and 48 °C

Temperature and menu selection

Simple and practical: Remote control FX

Convenient
Wireless remote control with LC display for precise temperature setting between 20 °C and 60 °C.

Practical and informative
Two keys to programme individual set values, activation of temperature lock as well as indication of function and service menu.

Universal
Also available as accessory to upgrade CEX-U.

Precision controlled hot water convenience

CEX-U ELECTRONIC MPS®

Electronic instantaneous water heater CEX-U ELECTRONIC MPS®

With its electronic control the CEX-U ELECTRONIC MPS® guarantees an energy-efficient supply of hot water. The water is heated to the pre-set temperature as it flows through the unit. Users are able to select the temperature at the touch of a button via the LCD control panel. The panel is equipped with two fixed-value keys, which are factory set to 35 °C and 48 °C.

- Electronically controlled, under-sink instantaneous water heater in a compact design
- Precise temperatures due to TWIN TEMPERATURE control TTC® up to the capacity of the appliance
- Electronic safety system with air bubble detection
- Easy installation under the kitchen sink due to small dimensions and outside ⅜" water connections for installation directly to the tap connecting hose
- Supplied with power cable for 3-phase power supply for easy installation without opening the appliance
- Multiple Power System MPS®:
  Power settings set during installation,
  11 or 13.5 kW 400 V (approx. 5 l/min 20 °C to 60 °C)
- Dimensions (H × W × D): 29.4 × 18 × 11 cm

TWIN TEMPERATURE

IES SYSTEM MPS SOLAR ready

Remote control optional

3-phase power supply with load shedding box

If a 3-phase power supply is available in the house, it is not generally difficult for an electrician to provide the required 400 V power supply connection at the place of installation. However, if it is not possible to provide a discrete electrical connection a possible alternative is to install the instantaneous water heater together with the load shedding box LAB to the existing 3-phase cooker connection in the kitchen. This arrangement sees the electric cooker and the instantaneous water heater share the same connection, whereby the instantaneous water heater has priority.

In everyday use briefly interrupting the power supply to the cooker has no negative effect on the cooking (possible only in conjunction with electro-mechanical cookers without electronic timing control).

VANILLIN
CURRY
OREGANO
PFEFFER
STEAK
MUSKAT

Practical installation below the kitchen sink

CDX 11-U BASITRONIC®

Electronic instantaneous water heater CDX 11-U BASITRONIC®

Although this instantaneous water heater is not equipped with any operating elements the integrated electronics still reliably do their job. They control the output power according to the flow rate and inlet temperature. In daily use the temperature setting is set as accustomed via the tap.

- Electronically controlled, under-sink instantaneous water heater in a compact design
- Automatically adapts output performance to the flow rate and inlet temperature
- Maximum outlet temperature factory set to 50 °C (internally adjustable)
- Easy installation under the kitchen sink due to small dimensions and outside ⅜" water connections for installation directly to the tap connecting hose
- Supplied with power cable for 3-phase power supply for easy installation without opening the appliance
- Performance: 11 kW 400 V (approx. 4.8 l / min 45 °C)
- Dimensions (H × W × D): 29.4 × 18 × 11 cm

CBH 7 · CBH 11

Instantaneous water heater CBH 7 / 11

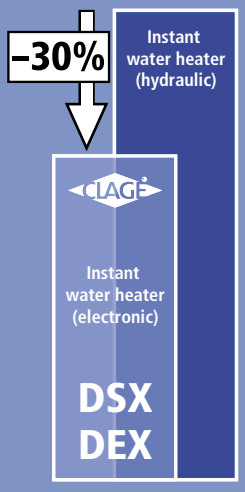
The instantaneous water heater CBH 11 has an integrated load shedding circuit as standard. That makes it possible to power the unit and an electro-mechanical cooker from a shared 400 V electrical connection (cooker connection box).

- Hydraulically controlled under-sink instantaneous water heater
- Instantaneous water heater automatically activates full heating power
- The integrated load shedding circuit and the second connection terminal facilitate making a connection between the electro-mechanical cooker and the cooker connection box, if this is operated via a 3/N/PE ~400 V connection
- Performance:
  CBH 7: 6.9 kW 400 V (approx. 3.5 l / min Δt 22 K)
  CBH 11: 11 kW 400 V (approx. 5.0 l / min Δt 31 K)
- Dimensions (H × W × D): 33 × 21 × 9 cm

…the innovative hot water solution.

Electronic instantaneous water heaters for the bathroom and shower

A luxurious bath in a romantic atmosphere or a fantastic hot shower – both can be a thing of real enjoyment. Above all, when an unlimited amount of hot water is available at the desired temperature. Fully electronic instantaneous water heaters combine this level of luxury with energy efficiency. The reason: the units heat the water only when it is actually flowing into the bath or the shower. And because it is heated to the desired temperature within seconds the hot water does not have to travel long distances nor it is necessary to add cold water. All advantages that save valuable energy and precious drinking water. Apropos the environment: CLAGE DSX and DEX instantaneous water heaters are also compatible with solar thermal systems.



Save up to 30 % operating costs per annum!

In comparison with a conventional hydraulic instantaneous water heater it is possible to save up to 30 % energy and water costs per annum with the electronic models DSX and DEX. Replacing the units is worthwhile, because the new model soon pays for itself.

The electronic instantaneous water heaters DSX and DEX (flow rate from 8 l/min at exactly 38 °C) was compared with a hydraulic instantaneous water heater, 21 kW with a mixed water flow rate of 11.6 l/min delivering water at 38 °C in a three-person household with the following parameters: Duration of use per day: 4 minutes per person; inlet temperature: 12 °C; number of days in use: 330 days. (source: CLAGE).

High-tech for excellent hot water comfort

DSX SERVOTRONIC MPS®

Fully electronic instantaneous water heater DSX SERVOTRONIC MPS®

Our top of the range electronic instantaneous water heater offers stunning technology housed in an appealing design. A simple touch of a button suffices and the water has the right temperature. The innovative multifunction backlit display offers an extensive range of service functions and changes its colour according to the set temperature.

- Fully electronically controlled, high-tech instantaneous water heater for multipoint applications
- Precise outlet temperatures between 20 °C and 60 °C at any time thanks to TWIN TEMPERATURE Control TTC® and dynamic flow control SERVOTRONIC®
- Electronic safety system with air bubble detection
- Easy to install thanks to open mounting space and variable connection options
- Multiple Power System MPS®:
  Power settings set during installation: 18, 21, 24 or 27 kW 400 V
  (Performance: approx. 9 l/min 20 °C to 60 °C)
- Optional remote control module available
- Dimensions (H × W × D): 46.6 × 23 × 9.7 cm

TWIN TEMPERATURE

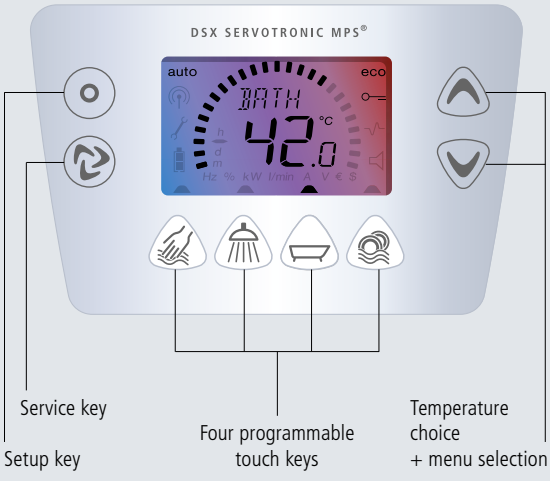
IES SYSTEM MPS SOLAR ready

Remote control optional

DESIGNPREIS 2008 NOMINEE

Focus Energy Silber 2006

Benutzerfest GUT



Inspiring: DSX-multifunctional display

Clear text display and coloured illumination
No confusing number codes, just operating statuses in clear text; the coloured backlighting seamlessly indicates the selected temperature from blue (cool) to lilac through to red (hot).

Energy monitor and clock
The energy monitor indicates clearly just how economic it is to operate the DSX. If you wish it will also display the time.

Detailed information
For the technically minded interested in the details it is also possible to display other operating statuses at the touch of a button, for example the cold water temperature, flow rate, power consumption and so forth.

Convenient, economic and reliable

DEX ELECTRONIC MPS®

Electronic instantaneous water heater DEX ELECTRONIC MPS®

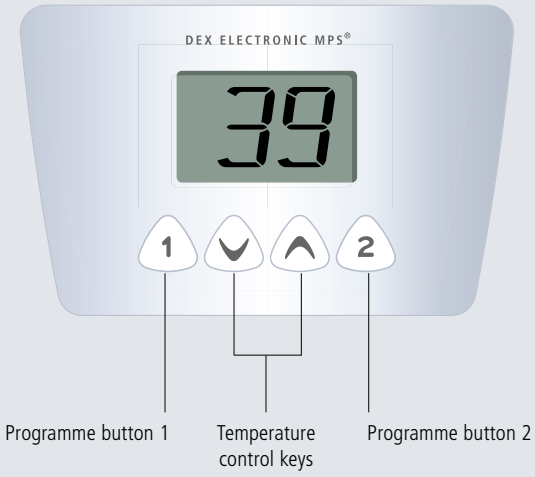
The DEX has everything that characterises a good electronic instantaneous water heater. It is possible to directly select the desired temperature, which can also be read via the large-format LC display.

- Electronically controlled, superior instantaneous water heater for multipoint applications
- Precise outlet temperatures between 20 °C and 60 °C due to TWIN TEMPERATURE Control TTC® up to the full rated power output
- Electronic safety system with air bubble detection
- Easy to install thanks to open mounting space and variable connection options
- Multiple Power System MPS®:
  Power settings set during installation: 18, 21, 24 or 27 kW 400 V
  (Performance: approx. 8 l / min 20 °C to 60 °C)
- Optional remote control module available
- Dimensions (H × W × D): 46.6 × 23 × 9.7 cm

TWIN TEMPERATURE

IES SYSTEM MPS SOLAR ready

Remote control optional



User-friendly two-key control panel and integrated LC display

Easy-to-read display
The two-key control panel with large integrated LC display allows the user to set the temperature to the exact degree between 20 °C and 60 °C.

Two touch-keys to set individual desired temperatures
Individual fixed values are stored using the two programming keys. It is also possible to activate a temperature limit as well as retrieve displayed operating and servicing values.

Saving energy in the bath made easy

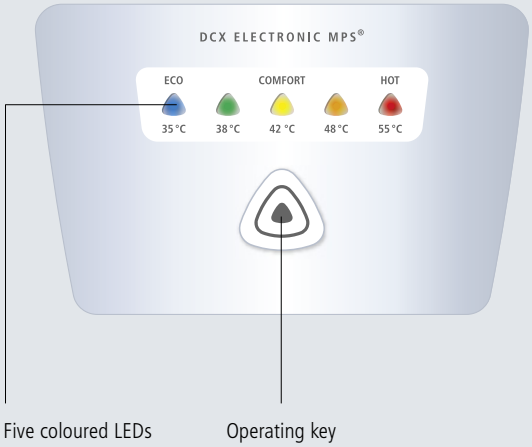
DCX ELECTRONIC MPS®

Electronic instantaneous water heater DCX ELECTRONIC MPS®

The DCX ELECTRONIC MPS® is an economic and ergonomically compelling alternative for applications that require simple operation above all else. The five pre-set temperatures are ideal for typical uses.

- Electronically controlled instantaneous water heater for multipoint applications featuring a simple control concept
- Single key operation for rapid and simple temperature selection in five easy steps: 35 °C, 38 °C, 42 °C, 48 °C and 55 °C
- Consistent temperature control with TWIN TEMPERATURE Control TTC® up to the full rated power output
- Electronic safety system with air bubble detection, temperature and pressure cut-off
- Easy to install thanks to open mounting space and variable connection options
- Multiple Power System MPS®:
  Power settings set during installation: 18, 21, 24 or 27 kW 400 V
  (Performance: approx. 8 l/min 35 °C to 55 °C)
- Dimensions (H × W × D): 46.6 × 23 × 9.7 cm

TWIN TEMPERATURE IES SYSTEM mps



Simple and practical: One key – five temperatures

Single key control panel
A simple touch of a button suffices to switch between the temperatures 35 °C, 38 °C, 42 °C, 48 °C and 55 °C.

Coloured LEDs
When selected each of the respective water temperatures is indicated by a different LED colour.

Basic alternatives

DBX 18 · DBX 21 · DBX 24 · DBX 27

Electronic instantaneous water heater DBX BASITRONIC® 18..27

The basic model of the electronic instantaneous water heater series requires no operating elements whatsoever. As a result, the DBX is available for a surprisingly favourable price.

- Electronically controlled basic instantaneous water heater for multipoint applications
- The output power is automatically adapted according to the flow rate and inlet temperature; outlet temperature factory set to 50 °C (internally adjustable)
- Electronic safety system with temperature and pressure cutoff
- Easy to install thanks to open mounting space and variable connection options
- Performance: DBX 18: 18 kW 400 V (approx. 7 l / min 50 °C)
  DBX 21: 21 kW 400 V (approx. 8 l / min 50 °C)
  DBX 24: 24 kW 400 V (approx. 9 l / min 50 °C)
  DBX 27: 27 kW 400 V (approx. 9 l / min 50 °C)
- Dimensions (H × W × D): 46.6 × 23 × 9.7 cm

IES SYSTEM

DB 13 · DB 18 · DB 21 · DB 24

Instantaneous water heater DB 13..24

The hydraulic instantaneous water heater switches automatically depending on the flow rate. However, it is not possible to guarantee a constant outlet temperature as it is the advantage of the electronic models. This is because when the pressure fluctuates (e. g. a second tap is turned on) the water temperature also varies.

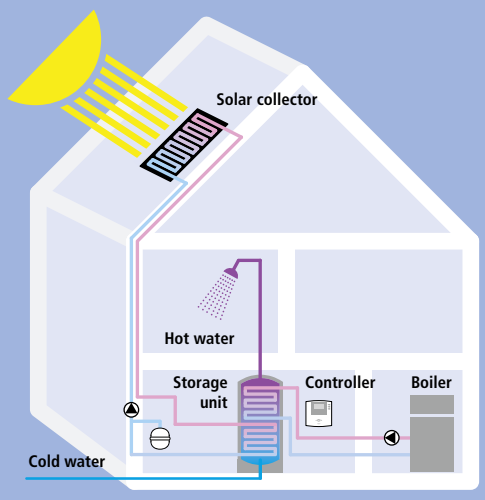
- Hydraulically controlled instantaneous water heater for multipoint applications
- Part-power switch for 33 % lower power consumption (ECO – MAX)
- Power consumption is automatically halved at low flow rates (DB 18..24)
- Particularly installation-friendly thanks to versatile mounting options
- Performance: DB 13: 13 kW 400 V (approx. 6 l / min 45 °C)
  DB 18: 18 kW 400 V (approx. 7 l / min 50 °C)
  DB 21: 21 kW 400 V (approx. 8 l / min 50 °C)
  DB 24: 24 kW 400 V (approx. 9 l / min 50 °C)
- Dimensions (H × W × D): 47 × 23.6 × 13 cm

IES SYSTEM

Solar thermal energy

Every year, the sun provides us with many times the energy of all known fossil fuel reserves. This radiant energy is available all the time, and what's more, it's free. To meet the world's growing energy demand while at the same time protecting the environment we need to tap into this huge potential.

Solar energy systems for hot water production and supplementary heating make a significant contribution to this. Not only do they allow independence from fluctuating fossil fuel prices and heating periods but they also considerably reduce the running costs. It is possible to compensate for weather-related fluctuations in the amount of energy harvested from the sun's radiation with instantaneous water heaters installed at a peripheral locations in the supply system. That allows solar-thermal systems to offer maximum comfort for a minimum amount of energy.



Solar thermal energy?

Solar thermal energy is the conversion of the sun's radiation to provide energy to heat hot water as well as support hot water heating systems.

The solar collectors installed on the roof convert light into heat. The solar transfer fluid is pumped via a solar circuit to the storage tank (flow pipe). From here it is transferred to the drinking water supply via a heat exchanger in the bottom of the storage tank.

The cooled media flows back to the collectors (return flow). The warmed storage water rises upwards from where it is drawn. The controller activates the pump in the solar circuit when the temperature in the collector is several degrees above the temperature in the lower part of the storage tank.

Making efficient use of solar energy

SCM 215 · SCM 215 BLACK

Solarthermal collector SCM 215 and SCM 215 BLACK

The certified, high-performance flat collector SCM 215 reliably absorbs radiated solar energy and converts it to usable heat. Thanks to its light-weight design it is easy to install and guarantees high yields. The silver or black anodised frames fulfil the highest demands placed on the collectors and give the system on the roof an aesthetically pleasing appearance.

- High-performance flat collectors to harvest heat from solar energy
- Very good thermal insulation system with excellent optical efficiency
- Easy to transport with carry-friendly circulating handle bar and easy weight design
- Simple and time-saving installation thanks to new fixing system and quick-release fasteners
- Up to 12 collectors can be connected in series to a row with a CLAGE SPB 20/6 Multistage Pump Group
- Eligible for government grants thanks to solar keymark certification and proof of a minimum yield of 525 kWh / m^2 a, complies with EU standards
- Dimensions (H × W × D): 209 × 103 × 8 cm

Innovative technology for clever installation

The solar collector is manufactured using state-of-the-art processes. The new fixing system with quick-release fasteners saves installation time across the whole system. It is possible to take into account adaptations to the country-specific connection dimensions at the factory.

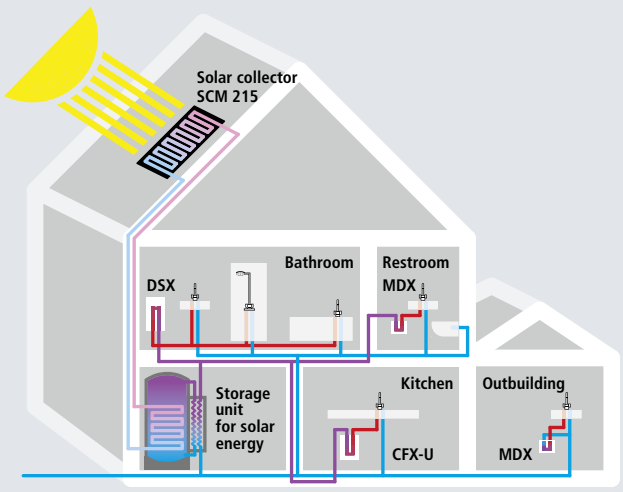
Solar systems with all the trimmings

Complete solar package including the solar collector SCM 215 BLACK

Complete solar packages SP 2..5

The times when heat is needed seldom coincide with the times when the energy from the sun can be harvested. For that reason the heat generated by solar energy has to be transported to the solar storage tank via the solar circuit from where it is drawn for use in the heating system or for warm water. To ensure the components of the solar energy system harmonize seamlessly the following complete solar packages are available with the following content:

- High-performance flat collectors SCM 215, optionally available with black or silver anodised frames; 2, 3, 4 or 5 collectors depending on requirements
- Connection, connectors and mounting accessories
- Roof installation sets with roof brackets
- Pump assembly with electronic solar control unit
- Diaphragm expansion tank
- Heat transfer fluid
- Overvoltage protection socket for collector sensor
- Process water mixer
- Steel potable water storage tank, bivalent, with two large-surface smooth tube heat exchangers, enamelled interior, primed exterior, PU rigid foam insulated, protective magnesium anode, including sensor tube and thermometer, 1½" coupling to retrofit an electrical heater as standard, depending on the package size 300 litre, 400 litre or 500 litre content



Auxiliary electronic instantaneous water heaters

If the solar yield is insufficient to heat water in the solar storage unit to the desired temperature, e.g. on overcast days, then it is necessary to heat it to the desired temperature. Solar system suitable electronic instantaneous water heaters are the ideal choice for integrating in the hot water system (e.g. DSX, DEX, CEX-U, CEX 9, CFX-U and MDX).

In making up the temperature difference these devices heat only the water actually used to the desired temperature. This solution avoids the wasting energy resulting from heating the water at a central point. The water heating process can be completely separated from the central heating.

Optimum hygiene and central top-up heating

FWX

Fresh water station FWX

Conventional tanks can favour the multiplication of legionella bacteria. Therefore large tanks regularly heat up to over 60 °C, and that increases the energy use. This becomes obsolete with the fresh water station. Potable water is heated directly as it flows through the heat exchanger. That protects people's health as well as saving energy.

- Fresh water station for combining with solar hot water store
- Hygienic heating of fresh water in a flow-through process
- Stainless-steel plate heat exchanger housed in a sheet steel case, complete with high-performance pump and power control
- Four cut-off ball valves and ¾" hot water connection
- Performance FWX:
  Approx. 30 kW (approx. 3.5 – 25 l/min 30 °C – 60 °C)
- Dimensions (H × W × D): 46.5 × 23 × 19.5 cm

FWX SOLARTRONIC®

Fresh water station FWX SOLARTRONIC®

One particular innovation is the new SOLARTRONIC® fresh water station with an integral electronic instantaneous water heater for central top-up heating. This system ensures hot water is always on tap when it's needed, and at the required temperature, even at night and on cloudy days.

- Fresh water station with integrated auxiliary, instantaneous water heater for heating preheated water in combination with solar hot water store
- Hygienic heating of fresh water in a flow-through process
- Stainless-steel plate heat exchanger housed in a sheet steel case, complete with high-performance pump, power control and electronic instantaneous water heater
- Three cut-off ball valves and ¾" hot water connection
- Performance FWX SOLARTRONIC®: 27 kW 400 V (approx. 2.5 – 11.5 l/min 30 °C – 60 °C)
- Dimensions: (H x W x D): 46.5 × 23 × 26 cm

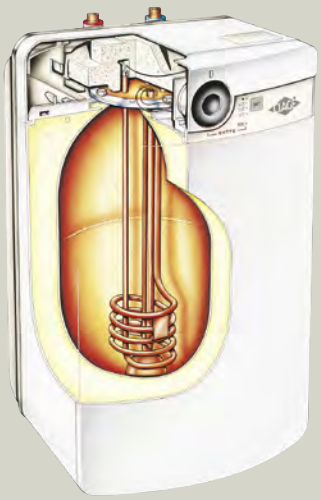
TWIN TEMPERATURE

IES SYSTEM mps

Storage water heaters for point of use water heating

Storage water heaters are the conventional means of providing hot water. They store hot water in a thermally insulated tank as close as possible to the point of use. They deliver a limited amount of mixed water without long delays. When water is drawn off the tank is automatically refilled and heated to the set temperature.

The size of the tank is chosen according to requirements: Small tanks, e. g. are sufficient for individual points of use (wash basins or sinks). Large wall-mounted tanks are able to supply several points of use throughout the dwelling from a central point.



Good insulation is a must!

Hot water tanks do not just heat the water when it is drawn off, but keep it at the pre-set temperature all the time. That requires high-quality insulation to keep heat losses as low as possible.

The energy-saving settings available on the temperature controller also help to restrict the consumption of energy.

As the tanks require some time to heat the water they are operated on a comparatively low connected load.

Small storage water heaters 5 and 10 litres

S 5-U · S 5-O (not illustrated)

Storage water heater S 5

Up to 5 litres of hot water at the selected temperature are delivered by the small storage water heater S 5-U at a single point of use. To ensure that the unit is not subjected to mains water pressure it requires special open-outlet tapware only.

- Non-pressure 5 litres storage water heater for one outlet with open-outlet (vented) tap
- Temperature control from appr. 35 °C to 85 °C with energy saving range and economy setting
- Polypropylene inner container with high-quality thermal insulation
- Temperature lock to 38 °C, 55 °C or 65 °C
- Resettable safety temperature cutout to avoid risk of running dry
- Performance: S 5-U (undersink model): 2.0 kW 230 V
  S 5-0 (oversink model): 2.0 kW 230 V
- Dimensions (H × W × D): 38 × 26 × 23 cm

S 10-U · S 10-O (not illustrated)

Storage water heater S 10

With its 10-litre storage capacity this water heater is able to fulfil even increased requirements for hot water at the kitchen sink. Thanks to the durable copper tank vented and unvented installation is possible in conjunction with a safety relieve valve (not supplied).

- Unvented 10 litre storage heater to supply single or multiple outlets
- Heavy gauge inner container, does not require an anode or regular inspection
- Temperature controller from approx. 35 °C to 80 °C
- 3-stage temperature lock of the selector range
- Performance: S 10-U (undersink unit): 2.2 kW 230 V
  S 10-O (oversink unit): 2.2 kW 230 V
- Dimensions (H × W × D): 45 × 30 × 29 cm

Storage water heaters 15 and 30 litres

S 15-O · S 15-U (not illustrated)

Storage water heater S 15

The 15 litre storage water heater S 15 is equipped with several special extras for added convenience and energy efficiency: The easy-to-use control field with a membrane key allows the user to comfortably set the temperature to 40 °C, 55 °C or 70 °C. An additional button starts a single heating process up to 90 °C for a maximum amount of hot water.

- Unvented 15 litre storage heater to supply single or multiple outlets.
- Heavy gauge inner container, does not require an anode or regular inspection
- Touch key for temperature selection 40 °C – 55 ° – 70 °C with heating indicator
- Additional button for heating once to 90 °C
- Performance: S 15-U (undersink unit): 2.2 kW 230 V
  S 15-O (oversink unit): 2.2 kW 230 V
- Dimensions (H × W × D): 45 × 30 × 29 cm

S 30

Storage water heater S 30

The 30 litre wall-mounted storage water heater S 30 is the right choice for average hot water requirements. Energy consumption is kept within limits by the high performance foam insulation.

- Unvented 30 litre, wall-mounted storage water heater to supply multiple outlets
- Glass lined steel inner container
- Stepless temperature control up to approx. 65 °C
- Special enamel coating and magnesium anode provide corrosion protection
- Performance: 2.0 kW 230 V
- Dimensions (H × W × D): 56 × 38 × 37 cm

Storage water heaters 50 to 120 litres

S 50 · S 80 · S 100

Storage water heater S 50..100

If large amounts of water are required then these wall-mounted storage water heaters have the capacity you need. A special enamel coating in conjunction with the magnesium anode provide the requisite corrosion protection for the internal tank.

- 50, 80 or 100 litre capacity, unvented wall-mounted storage water heater to supply multiple outlets
- Glass lined steel inner container with high performance foam insolation
- Stepless temperature control up to 75 °C with temperature indicator
- Special enamel coating and magnesium anode provide corrosion protection
- Performance: S 50, S 80 and S 100: 2.0 kW 230 V
- Dimensions (H × W × D): S 50: 58 × 49 × 50 cm
  S 80: 81 × 49 × 50 cm
  S100: 96 × 49 × 50 cm

SX 100 · SX 50 · SX 80 · SX 120

Storage water heater SX 50..120

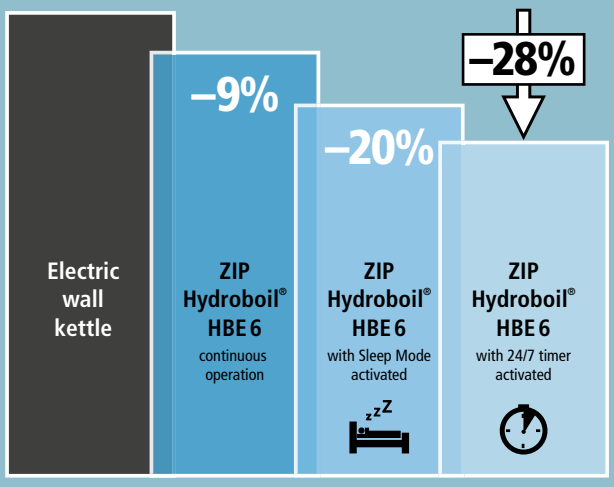
These universal storage water heaters offer 50-120 litre storage capacity to provide large amounts of mixed water to fulfil substantial hot water requirements. The electronic controls and dual-circuit system ensure economic operation, because the contents of the storage tank can be heated according to needs on an inexpensive night-time tariff.

- 50, 80, 100 and 120 litre capacity, unvented wall-mounted storage water heaters
- Pushbutton control panel with thermal capacity display, quick-heat function and consumption table
- High quality titanium glass lined steel inner container with high performance foam insulation
- Universal connection for single-circuit and economic dual circuit operations; electronic temperature control with two temperature sensors
- Inspection flange and drain nozzle for easy maintenance
- Performance (according to connection type): SX 50: 0.75 / 4.5 kW 230 V / 400 V
  SX 80: 1.0 / 6.0 kW 230 V / 400 V
  SX 100: 1.0 / 6.0 kW 230 V / 400 V
  SX 120: 2.0 / 6.0 kW 230 V / 400 V
- Dimensions (H × W × D): SX 50: 61 × 53 × 52 cm
  SX 80: 84 × 53 × 52 cm
  SX100: 99 × 53 × 52 cm
  SX120: 115 × 53 × 52 cm

Instant boiling water heaters

Time is becoming increasingly important in our fast-moving world. Intelligent, instant boiling water systems have now put an end to all that waiting for boiling water. They dispense boiling hot water at the touch of a tap to make fresh tea, coffee or other hot drinks. And it is worth taking into account they can be more economic to run than conventional kettles or urns that often heat more water than is actually used.

That makes instant boiling water heaters essential equipment for preparing drinks in offices, canteens, restaurants, hotels and hospitals. They also prove a practical enhancement at home or in tea kitchens and meeting points in top-class commercial properties that nobody will ever want to go without again.



Fast, practical and also economic

Surveys undertaken at Aston University (Birmingham) have shown that the weekly energy requirement for typical actions such as making tea and coffee can be lowered by up to 28% if instant boiling water heaters are used rather than conventional kettles.

The surveys were undertaken across a time frame from Monday to Friday and 10 hours a day. During the rest of the time the ZIP Hydroboil® automatically entered an energy saving mode or switched off.

SAFETY
zip

Instant boiling & chilled water from the tap

ZIP HydroTap® BC 100 / 125 · BC 150 / 175

Instant boiling water and chilled water system ZIP HydroTap® BC..

Drinking is important and healthy. Now it is also amazingly easy, because the drinking water system also dispenses filtered chilled drinking water as well as filtered boiling hot water instantly from the same tap. And because it is no longer necessary to buy, store or handle heavy water bottles the appliance soon pays for itself.

- Under-sink drinking water system with electronic tap. Dispenses filtered boiling and chilled water instantly from the same tap
- Electronic dispensing tap featuring lever operation, function display and safety lock as user protection where required
- Lever lock for easy filling of pots
- Electronic temperature control for added efficiency
- LCD control panel for menu control of energy-saving models
- Integrated filter system with easily replaceable filter cartridge
- White painted case and stainless-steel tank
- Performance: BC 100 / 125: 1.5 kW 230 V (3.0 litres 65 – 100 °C)
  (3.5 litres 4 – 10 °C)
  BC 150 / 175: 2.0 kW 230 V (5.0 litres 65 – 100 °C)
  (6.5 litres 4 – 10 °C)
- Dimensions (H × W × D): BC 100 / 125: 34 × 44 × 43 cm
  BC 150 / 175: 40 × 50 × 47 cm

Installed as you wish

Sink mounted (small photo left)
The tap is generally mounted on the sink in addition to the existing mixer tap. The under-sink unit is installed in the kitchen sink unit beneath the tap.

With optional Tap Font (large photo left)
Alternatively, it is also possible to install (bench-mount) the tap and drainage Font (available as accessory, Art. no.: 44101) on virtually any work top.

BOILING
BOILING
FILTER
CHANGE

Boiling hot water straight from the tap

ZIP HydroTap® B 100 F

Instant boiling water system
ZIP HydroTap® B 100 F

Convenient and safe for a quick break: boiling hot water is available at the touch of a tap in tea kitchens and meeting points in small and mid-sized offices – and there is no waiting for water to boil. The integrated filter improves the quality of the water, the energy-saving function is easily configured via the LCD control panel.

- Under-sink drinking water system with electronic tap. Dispenses filtered boiling water instantly
- Electronic dispensing tap featuring lever operation, function display and safety lock as user protection where required
- Lever lock for easy filling of pots
- Electronic temperature control
- LCD control panel for menu control of energy-saving models
- Micron filter cartridge to improve the quality of the water
- White painted case and stainless-steel tank
- Performance: 1.5 kW 230 V (3.0 litres 65 – 100 °C)
- Dimensions (H × W × D): 36 × 29 × 32 cm

ZIP HydroTap® HT 60

Instant boiling water system
ZIP HydroTap® HT 60

Dispensing boiling water straight from the tap is convenient, fast and simple. One touch of the red lever on the tap and boiling hot water begins to flow instantly. The perfect addition to any superior fitted kitchen at home.

- Under-sink drinking water system with electronic tap. Dispenses boiling water instantly
- Electronic dispensing tap featuring lever operation, function display and safety lock as user protection where required
- Lever lock for easy filling of pots
- Electronic temperature control
- White painted case and stainless-steel tank
- Performance: 1.5 kW 230 V (1.5 litres 98 °C)
- Dimensions (H × W × D): 34 × 19 × 32 cm

Wall-mounted instant boiling water

ZIP Hydroboil® HBE 6

Instant boiling water heater ZIP Hydroboil® HBE 6..

No more waiting for boiling water! A simple touch of the lever and the pot of tea or coffee starts to brew. A real time saving for the office or production tea breaks! To increase energy efficiency the new ZIP Hydroboil® heaters are equipped with electronic controls.

- Instant boiling water heaters provide a constant supply of boiling water
- Patented high-precision temperature control systems are designed to keep the boiling water within one degree of boiling point
- Easy to use with unique two-way cool touch tap
- LC display shows time, day, heater operation and energy saving mode status
- Configurable energy-saving mode (automatically reduces the temperature to 65 °C when idle for longer periods of time, when darkness falls or timer activated)
- Patented twin chamber system with thermally insulated stainless-steel tanks prevent cold and hot water being mixed
- Stainless steel or corrosion-resistant, white enamelled steel case
- Performance: HBE 6-003: 1.4 kW 230 V (3 litres 65 – 100 °C)
  HBE 6-005: 2.2 kW 230 V (5 litres 65 – 100 °C)
  HBE 6-007: 2.2 kW 230 V (7.5 litres 65 – 100 °C)
- Dimensions (H × W × D): HBE 6-003: 43 × 29 × 18 cm
  HBE 6-005: 47 × 32 × 20 cm
  HBE 6-007: 58 × 32 × 20 cm

Energy conservation

Twin-chamber technology
ZIP Hydroboil® appliances are equipped with patented twin chamber technology that separates incoming cold water from the boiling water storage chamber. This design feature ensures the user is able to draw boiling water instantly as soon as he or she operates the combination tap.

Electronic control
The electronic controls significantly increase the energy efficiency of the appliance. It adapts the heating output to the frequency of use and even facilitates timer-controlled lowering of stand-by power, for example sleep-mode during night-time operations.

Satisfies both large and small requirements

ZIP Hydroboil® KA 15 · KA 25 · KA 40

Instant boiling water heater ZIP Hydroboil® KA 15..40

Large capacity instant boiling water heaters are designed to ensure effective work processes and large numbers of quickly prepared hot drinks. This appliance significantly increases productivity in catering facilities, hospitals and company canteens.

- Instant boiling water heaters provide a constant supply of boiling water in large amounts
- Twin chamber system and stainless-steel tanks prevent cold and hot water being mixed
- Two-way tap makes it easy to fill single cups or a pot
- No steam is emitted; the steam is recycled to warm incoming cold water
- Corrosion-resistant, white enamelled steel case
- Performance: KA 15: 2.4 kW 230 V (15 litres 99 °C)
  KA 25: 3.6 kW 230 V (25 litres 99 °C)
  KA 40: 2 × 3.0 kW 230 V (40 litres 99 °C)
- Dimensions (H × W × D): KA 15: 60 × 39 × 30 cm
  KA 25: 78 × 39 × 30 cm
  KA 40: 84 × 52 × 29 cm

K 5

Electric wall kettle K 5

The conventional instant boiling water heater is wall-mounted above the sink. It is designed to provide enough hot water from a single cup of tea up to a maximum of 5 litres as required.

- Manually to fill water boiler for supplying boiling water from one cup to 5 litres
- Temperature range from approx. 37 °C to boiling point
- Fitting integrated into the appliance
- Overflow integrated into swivel spout
- Automatic turn-off when boiling point is reached
- Performance: 2.0 kW 230 V (5 litres 99 °C)
- Dimensions (H × W × D): 27 × 29 × 17 cm

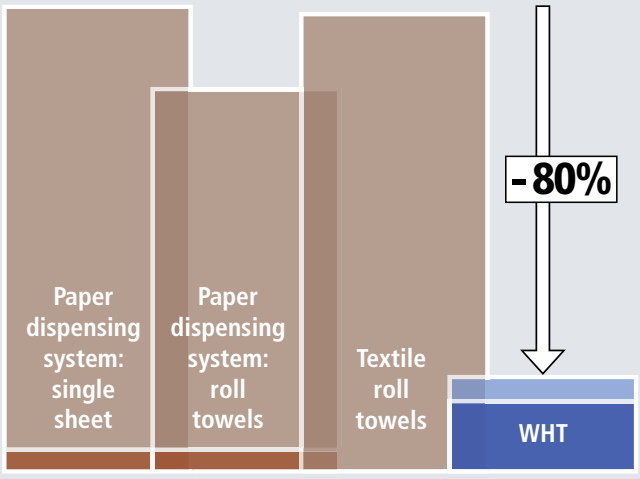
Drying hands hygienically

WHT

Hot-air hand dryer WHT

The touch-free, convenient hand dryer starts automatically as soon as users hands approach the electronic infrared sensor. The optimum air flow through heating ribs ensure highly efficient use of energy and low power consumption. In addition, low noise levels and reliability are guaranteed.

- Hot-air hand dryer in attractive design for variable integration in every ambience
- Comfort no touch ON / OFF switching by electronic infrared proximity switch.
- Smart mounting-concept with integrated mounting plate without having to open the device
- The special impact-resistant ABS case and the maintenance-free whisper-quiet motor guarantee a long and dependable service life
- Performance: 1.8 kW 230 V (airflow: 38 l / s)
- Dimensions (H × W × D): 33 × 27 × 16 cm

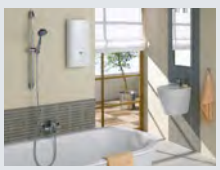


Cost comparison

The hot-air hand dryer is fundamentally by far the most economic drying system available to provide a hygienic method of drying hands in highly frequented restrooms. This is because it avoids having to wash and provide towels or having to refill and dispose of paper towels.

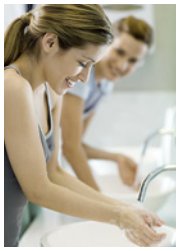
Three different hand drying systems were compared: Hot-air hand dryer, paper dispensing systems (single sheet and roll towels) as well as textile roll towels. Parameters: Basic costs (dark column) = procurement costs for basic device + accessories + installation. Operating costs (light column) = paper or textile rolls or electricity for five years respectively. Drying actions per year: 10.000. Textile roll towel systems have no basic costs as these are included in all-inclusive rental service (source: IPI Institut für Produktforschung und Information GmbH, Esslingen; (Institute for Product Research and Information), Report No.: 5051-07, 2007)

Product selection

	Category		
Use	**Standard**	**Comfort**	**Best**
Wash basin: **2 – 4 l/min 38 °C** **single point**	Mini instant water heater M 3 with tap SMB or ENM 	Mini instant water heater MDH 6 	Electronic mini instant water heater MDX 6 ELECTRONIC
Kitchen: **3 – 5 l/min 48 °C** **single point**	Mini instant water heater MDH 6 	Electronic instant water heater CEX 9 ELECTRONIC	Electronic instant water heater CFX-U ELECTRONIC
Shower: **4 – 8 l/min 40 °C** **single or multipoint**	Shower unit M 6 / BGS 	Electronic instant water heater CEX 9 ELECTRONIC	Electronic instant water heater CBX 13 ELECTRONIC
Bathroom: **8 – 10 l/min 40 °C**  **multipoint**	Electronic instant water heater DBX 24 ELECTRONIC	Electronic instant water heater DEX ELECTRONIC	Electronic instant water heater DSX ELECTRONIC

ELECTRONIC = equipped with electronics for desired temperature selection, temperature consistency and energy efficiency

Made in Germany



Mini electronic instant water heaters 3 – 7 kW

Technical Data

Model		MDX 3	MDX 4	MDX 6	MDX 7
Product code		13003	13004	13006	13007
Complete systems	with touch-free sensor tap	MDX 3 Lumino			MDX 7 Lumino
Use					
Nominal capacity	litres	0.2	0.2	0.2	0.2
For one outlet		•	•	•	•
Application	handwash basin / kitchen sink	• / –	• / –	• / •	• / •
Installation type	undersink unit	•	•	•	•
Electrical data					
Type	closed-outlet	•	•	•	•
Maximum static pressure	MPa (bar)	1 (10)	1 (10)	1 (10)	1 (10)
Water system connections (thread connection)		G 3/8"	G 3/8"	G 3/8"	G 3/8"
Factory set temperature	°C	38 (installer temperature adjustment between approx. 30 and 50)			
Hot water flow rate at Δt = 25 K [1]	l/min	2.0	2.5	3.3	3.7
Switch-on – maximum flow rate [2]	l/min	1.2 – 2.0	1.5 – 2.5	1.5 – 3.3	1.5 – 3.7
Nominal power rating [3]	kW	3.5	4.4	5.7	6.5
Supply voltage	V	1 / N / PE ~ 230	1 / N / PE ~ 230	1 / N / PE ~ 230	2 / PE ~ 400
Nominal current	A	15	19	25	2 × 16
Required cable size [3]	mm^2	1.5	2.5	4.0 [4]	2.5
VDE approved, CE endorsed / Protection class		• / IP 24	• / IP 24	• / IP 24	• / IP 24
Features					
Control	electronical	•	•	•	•
IES® Bare wire heating system	/ Ω cm [5]	• / 1300	• / 1000	• / 1000	• / 1300
Electronic control system with temperature and flow sensors		•	•	•	•
Replaceable heating cartridge		•	•	•	•
Power cable	with plug / for permanent connection	• / –	– / •	– / •	– / •
T-piece with pressure hose / Special jet regulator		• / •	• / •	• / •	• / •
Solar-compatible (Inlet temperature < 60 °C)		•	•	•	•
Dimensions and weight					
Dimensions (Height × Width × Depth)	cm	13 × 18.5 × 8	13 × 18.5 × 8	13 × 18.5 × 8	13 × 18.5 × 8
Approx. weight (filled with water)	kg	1.5	1.5	1.5	1.5

• = included resp. yes 1) Temperature increase e.g. from 15 °C to 40 °C 2) Flow limited in order to obtain optimal temperature increase, can be adjusted inside the unit 3) Regulations vary according to the regional power supply authority. Must be connected by a qualified electrician only. 4) Use the power supply cable supplied 5) Permissible minimum electrical resistance of the water at 15 °C

Jet regulator (tap nozzle)

All mini instantaneous water heaters from CLAGE are supplied with an appropriate jet regulator that optimises the stream of water dispensed in line with the performance rating of the respective appliance, and supports its energy and water saving mode of operation.

To ensure optimal operation of the heater, this jet regulator must be fitted to the tap spout.

Jet regulator	Mini instant water heater	
Model	M..3 / M..4	M..6 / M..7
CSP 3		——
CSP 6	——	
CSM		——

Mini instant water heaters 3 – 7 kW

Technical Data

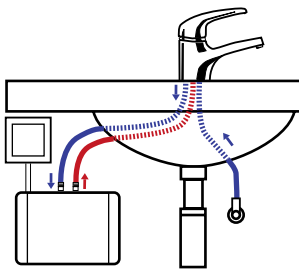
Model		MH 3	MH 4	MH 6	MH 7	MDH 3	MDH 4	MDH 6	MDH 7
Product code		14003	14004	14006	14007	12003	12004	12006	12007
Complete systems	with single-lever mixer tap	M 3 / ENM							
	with two-handle mixer tap	M 3 / SNM	M 4 / SNM						
	with two-handle mixer tap for oversink wall-mounting	M 3 / SMB	M 4 / SMB		M 7 / SMB				
	with shower set		M 4 / BGS	M 6 / BGS	M 7 / BGS				
Use									
Nominal capacity	litres	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
For single outlet		•	•	•	•	•	•	•	•
Application	handwash basin / kitchen sink	• / –	• / –	• / •	• / •	• / –	• / –	• / •	• / •
Installation type	undersink unit	•	•	•	•	•	•	•	•
	oversink unit	MH 3-O	MH 4-O	MH 6-O	MH 7-O				
Electrical data									
Type	open-outlet / closed-outlet	• / –	• / –	• / –	• / –	– / •	– / •	– / •	– / •
Maximum static pressure	MPa (bar)	open-outlet		open-outlet		1 (10)	1 (10)	1 (10)	1 (10)
Water connections (thread connection)		G 3/8"	G 3/8"	G 3/8"	G 3/8"	G 3/8"	G 3/8"	G 3/8"	G 3/8"
Hot water flow rate at Δt = 25 K [1]	l/min	2.0	2.5	3.3	3.7	2.0	2.5	3.3	3.7
Switch-on – maximum flow rate [2]	l/min	1.6 – 2.0	1.8 – 2.5	2.1 – 3.3	2.4 – 3.7	1.6 – 2.0	1.8 – 2.5	2.1 – 3.3	2.4 – 3.7
Nominal power rating [3]	kW	3.5	4.4	5.7	6.5	3.5	4.4	5.7	6.5
Supply voltage	V	1 / N / PE ~ 230			2 / PE ~ 400	1 / N / PE ~ 230			2 / PE ~ 400
Nominal current	A	15	19	25	2 × 16	15	19	25	2 × 16
Required cable size [3]	mm²	1.5	2.5	2.5	2.5	1.5	2.5	2.5	2.5
VDE approved, CE endorsed / Protection class		• / IP 24 [4]	• / IP 24 [4]	• / IP 24 [4]	• / IP 24 [4]	• / IP 24 [4]	• / IP 24 [4]	• / IP 24 [4]	• / IP 24 [4]
Features									
Control	hydraulical	•	•	•	•	•	•	•	•
IES® Bare wire heating system	/ Ω cm [5]	• / 800	• / 800	• / 800	• / 800	• / 800	• / 800	• / 800	• / 800
Replaceable heating cartridge		•	•	•	•	•	•	•	•
Power cable	with plug / for permanent connection	• / –	– / •	– / •	– / •	• / –	– / •	– / •	– / •
T-piece with pressure hose						•	•	•	•
Special jet regulator		•	•	•	•	•	•	•	•
Dimensions and weight									
Dimensions (Height × Width × Depth)	cm	13 × 18.5 × 8				13 × 18.5 × 8			
Approx. weight (filled with water)	kg	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3

• = included resp. yes 1) Temperature increase e.g. from 15 °C to 40 °C 2) Flow limited in order to obtain optimal temperature increase 3) Regulations vary according to the regional power supply authority. Must only be connected by a qualified electrician. 4) As oversink unit: Protection class IP 25 5) Permissible minimum electrical resistance of the water at 15 °C

Open-outlet installation (MH)

Mini instant water heaters with open outlet design can be mounted very quickly and easily in an open outlet installation.

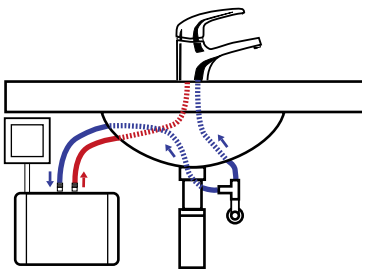
They are designed to supply a single tap outlet. To prevent pressurisation of the unit, a special open-outlet tap must be used.



Closed-outlet installation (MDH and MDX)

The mini instantaneous water heaters MDH and MDX are approved for unvented (closed outlet) installation.

The connection set supplied with the unit (T-piece and flexible hose) simplifies retrofitting to existing closed-outlet taps.



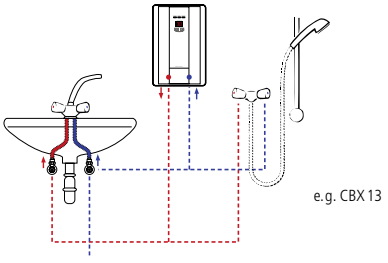
Compact instant water heaters 6–9 kW

Technical Data

Model		CRH 6	CRH 9	CRX 6	CRX 7	CRX 9	CEX 9 ELECTRONIC MPS®	
Product code		24106	24109	24206	24207	24209	26239	
Use								
Nominal capacity	litres	0.2	0.2	0.2	0.2	0.2	0.3	
For one outlet / For two outlets [1]		• / –	• / •	• / –	• / •	• / •	• / •	
Application	handwash basin / kitchen sink / shower [2]	• / • / –	• / • / •	• / • / –	• / • / •	• / • / •	• / • / •	
Installation type	undersink unit (water connections at top)	with UCX	with UCX	with UCX	with UCX	with UCX		
	oversink unit (water connections at bottom)	•	•	•	•	•	•	
Electrical data								
Type	closed-outlet	•	•	•	•	•	•	
Maximum static pressure	MPa (bar)	1 (10)	1 (10)	1 (10)	1 (10)	1 (10)	1 (10)	
Water connections (thread connection) G ½" Wall / flush mounted		• / •	• / •	• / •	• / •	• / •	• / –	
User temperature adjustment	°C			35 to 55	35 to 55	35 to 55	20 to 55	
Hot water flow rate at Δt = 25 K [3] [4]	l/min	3.8	5.0	3.8	4.1	5.0	3.8 [5]	5.0 [5]
Switch-on – maximum flow rate [6]	l/min	2.9–3.5	3.5–5.0	2.0–3.5	2.0–4.0	2.0–5.0	2.0–5.0	
Nominal power rating [7]	kW	6.6	8.8	6.6	7.2	8.8	6.6	8.8
Supply voltage	V	1/N/PE ~ 230		1/N/PE ~ 230			1/N/PE ~ 230	
Nominal current	A	29	38	29	33	38	29	38
Required cable size [7]	mm^2	4–6	6	4–6	6	6	4–6	6
VDE approved, CE endorsed / Protection class		• / IP 25	• / IP 25	• / IP 25	• / IP 25	• / IP 25	• / IP 25	
Features								
Control		hydraulical		electronical			electronical	
IES® Bare wire heating system	/ Ω cm [8]						• / 1000	
Tubular heating element		•	•	•	•	•		
Twin Temp. Control TTC® / Multiple Power System MPS®							• / •	
Temperature display				LED	LED	LED	LCD	
Programme buttons / Operating status indication		– / •	– / •	– / •	– / •	– / •	2 / •	
Dimensions and weight								
Dimensions (Height × Width × Depth)	cm	33 × 21 × 9		33 × 21 × 9			29.4 × 18 × 11	
Approx. weight (filled with water)	kg	2.4	2.4	2.4	2.4	2.4	2.7	

• = included resp. yes 1) If the inlet temperature in the country of use is > 20 °C. 2) CXH adjustable shower head recommended, Art.No. 00866 3) Temperature increase e.g. from 20 °C to 45 °C
4) Mixed water 5) Depending on the selected connection power rating 6) Flow limited in order to obtain optimal temperature increase 7) Regulations vary according to the regional power supply authority. Must only be connected by a qualified electrician. 8) Permissible minimum electrical resistance of the water at 15 °C

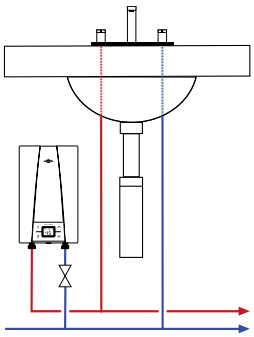
Closed-outlet installation, flush-mounted



For supplying one or two outlets. However, due to the low power, these outlets cannot be used simultaneously.

Closed-outlet installation, direct connection

For supplying one or two outlets. However, due to the low power, these outlets cannot be used simultaneously.



Compact instant water heaters 7 – 13 kW

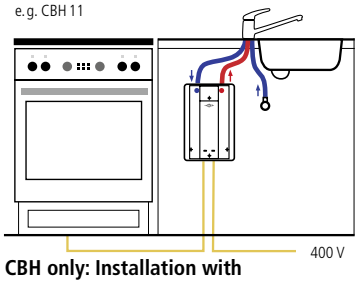
Technical Data

Model		CBH 7	CBH 11	CBX 11	CBX 13
Product code		25107	25111	25211	25213
Use					
Nominal capacity	litres	0.2	0.2	0.2	0.2
For single outlet / For two outlets		• / –	• / –	• / •	• / •
Application	handwash basin / kitchen sink / shower	• / – / –	• / • / –	• / • / –	• / • / • [1]
Installation type	undersink (water connections at top)	•	•		
	wall-mounted (water connections at bottom)			•	•
Electrical data					
Type	closed-outlet	•	•	•	•
Maximum static pressure	MPa (bar)	1 (10)	1 (10)	1 (10)	1 (10)
Water connections (thread connection)		G 3/8"	G 3/8"	G 1/2"	G 1/2"
Wall and flush mounted				•	•
User temperature adjustment	°C			35 to 55	35 to 55
Hot water flow rate at Δt = 28 K [2]	l/min	3.5	5.6 [3]	5.6 [3]	6.9 [3]
Switch-on – maximum flow rate	l/min	approx. 2.6 / 3.5	3.7 – 5.0	2.0 – 5.0	2.0 – 6.0
Nominal power rating [4]	kW	6.9	11.0	11.0	13.5
Supply voltage	V	3 / PE ~ 400	3 / PE ~ 400	3 / PE ~ 400	3 / PE ~ 400
Nominal current	A	3 × 10	3 × 16	3 × 16	3 × 20
Required cable size [4]	mm^2	1.5	2.5	2.5	4.0
VDE approved, CE endorsed / Protection class		• / IP 24	• / IP 24	• / IP 25	• / IP 25
Features					
Control		hydraulical	hydraulical	electronical	
IES® Bare wire heating system	/ Ω cm [5]	• / 900	• / 900	• / 1100	• / 1100
Temperature display / Operating status indication		– / •	– / •	LED / •	LED / •
Load shedding circuit		•	•		
Dimensions and weight					
Dimensions (Height × Width × Depth)	cm	33 × 21 × 9	33 × 21 × 9	33 × 21 × 9	33 × 21 × 9
Approx. weight (filled with water)	kg	1.9	1.9	1.9	1.9

• = included resp. yes 1) CXH adjustable shower head recommended, Art.No. 00866 2) Temperature increase e.g. from 12 °C to 40 °C 3) Mixed water 4) Regulations vary according to the regional power supply authority. Must only be connected by a qualified electrician. 5) Permissible minimum electrical resistance of the water at 15 °C

Installation options

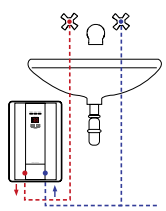
e.g. CBH 11



CBH only: Installation with load shedding equipment

Integrated load shedding equipment and second binding post permits connection between the electromechanical cooker and the cooker power connection, provided that the cooker operates on 400 V three phase.

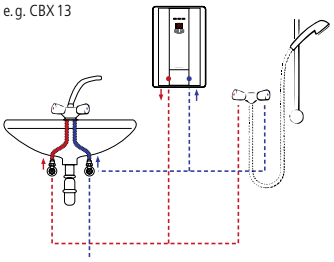
e.g. CBX 13



Closed-outlet installation, Flush-mounted

For supplying one outlet with wall-mounted taps

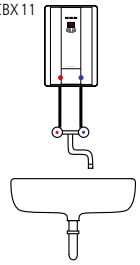
e.g. CBX 13



Closed-outlet installation, Flush-mounted

For supplying several tap outlets. However, due to the low power, these taps cannot be used simultaneously.

e.g. CBX 11



Open-outlet installation

Simple and safe!
Ideal for one outlet.
A tap for open outlet is required.

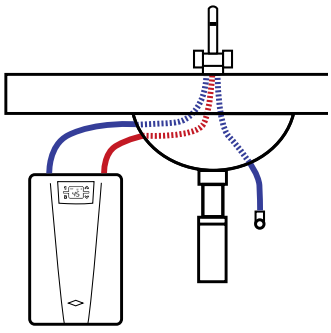
Electronic under-sink instantaneous water heaters 11 – 13 kW

Technical Data

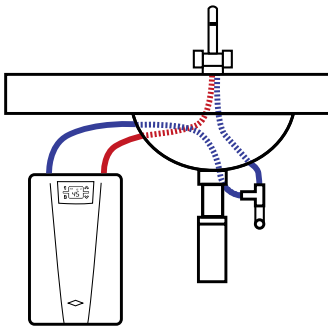
Model		CDX-U BASITRONIC®	CEX-U ELECTRONIC MPS®		CFX-U FUNKTRONIC MPS®	
Product code		26113	26213		26313	
Use						
Nominal capacity	litres	0.3	0.3		0.3	
For single outlet / For two outlets		• / •	• / •		• / •	
Application	handwash basin / kitchen sink	• / •	• / •		• / •	
Installation type (water connections at top)		undersink	undersink		undersink	
Electrical data						
Type	closed-outlet	•	•		•	
Maximum static pressure	MPa (bar)	1 (10)	1 (10)		1 (10)	
Water connections (thread connection)		G 3/8"	G 3/8"		G 3/8"	
Temperature adjustment	°C	Factory setting: 50, (installer adjustable between 30 and 60)	User: 20 to 60		User: 20 to 60	
Hot water flow rate at Δt = 33 K [1) 2)]	l/min	4.8	4.8 [3)]	5.8 [2) 3)]	4.8 [2) 3)]	5.8 [2) 3)]
Switch-on – maximum flow rate [4)]	l/min	2 – 5	2 – 5		2 – 5	
Nominal power rating [5)]	kW	11.0	11.0	13.5	11.0	13.5
Supply voltage	V	3 / PE ~ 400	3 / PE ~ 400	3 / PE ~ 400	3 / PE ~ 400	3 / PE ~ 400
Nominal current	A	3 × 16	3 × 16	3 × 20	3 × 16	3 × 20
Required cable size	mm^2	1.5	1.5	2.5	1.5	2.5 [6)]
VDE approved, CE endorsed / Protection class		• / IP 24	• / IP 24		• / IP 24	
Equipment						
Control		electronical	electronical		electronical	
IES® Bare wire heating system	/ Ω cm [7)]	• / 1000	• / 1000		• / 1000	
Power cable		•	•		•	
Multiple Power System MPS® / Twin Temperature Control TTC®			• / •		• / •	
Temperature display			LCD		Remote control with LCD	
Programme buttons / Operating status indication			2 / •		2 / •	
Solar-compatible (Inlet temperature < 70 °C)			•		•	
Remote control module			as accessory		included in the package	
Dimensions and weight						
Dimensions (Height × Width × Depth)	cm	29.4 × 18 × 11	29.4 × 18 × 11		29.4 × 18 × 11	
Approx. weight (filled with water)	kg	2.7	2.7		2.7	

• = included resp. yes 1) Temperature increase e.g. from 12 °C to 45 °C 2) Mixed water 3) Depending on the selected connection power rating. 4) Flow limited in order to obtain optimal temperature increase 5) Regulations vary according to the regional power supply authority. Must only be connected by a qualified electrician. 6) Use the power supply cable supplied 7) Permissible minimum electrical resistance of the water at 15 °C

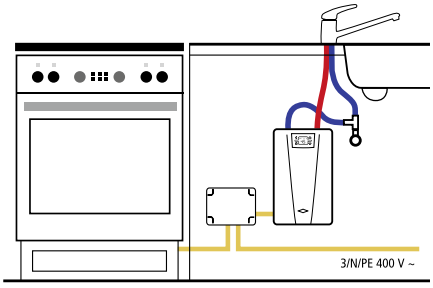
Open-outlet installation



Closed-outlet installation



Power supply with load shedding circuit



Basic instant water heaters 18–27 kW

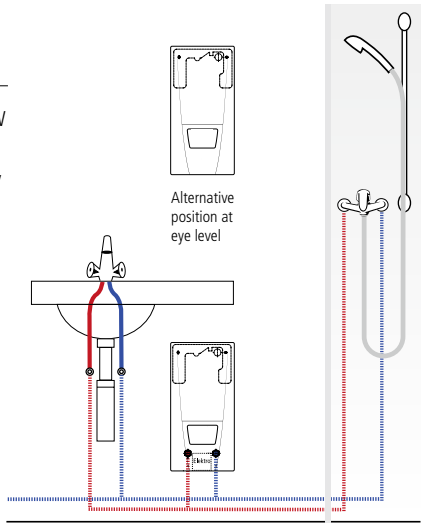
Technical Data

Model		DB 13	DB 18	DB 21	DB 24	DBX 18	DBX 21	DBX 24	DBX 27
Product code		31113	31118	31121	31124	34118	34121	34124	34127
Use									
Nominal capacity	litres	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.4
For single outlet / For multiple outlets		• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •
Application	handwash basin / kitchen sink	• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •
	shower / bathtub	• / –	• / •	• / •	• / •	• / •	• / •	• / •	• / •
Installation type	wall-mounted	•	•	•	•	•	•	•	•
Electrical data									
Type	closed-outlet	•	•	•	•	•	•	•	•
Maximum static pressure	MPa (bar)	1 (10)	1 (10)	1 (10)	1 (10)	1 (10)	1 (10)	1 (10)	1 (10)
Water connections (thread connection)	wall- and flush-mounted	G ½"	G ½"	G ½"	G ½"	G ½"	G ½"	G ½"	G ½"
Maximum inlet temperature	°C	20	20	20	20	30	30	30	30
Factory set temperature	°C					50, installer temperature adjustment between 30 and 60			
Hot water flow rate at Δt = 28 K [1) 2)]	l/min	6.7	9.2	10.7	12.3	9.2	10.7	12.3	13.8
Switch-on – maximum flow rate	l/min	3.6 – 6.5	4.0 – 7.0	4.6 – 8.0	5.0 – 9.0	2.5 – 7.0 [3)]	2.5 – 8.0 [3)]		2.5 – 9.0 [3)]
Nominal power rating [4)]	kW	13.2	18	21	24	18	21	24	27
Supply voltage	V	3 / PE ~ 400				3 / PE ~ 400			
Nominal current	A	3 × 19	3 × 26	3 × 30	3 × 35	3 × 26	3 × 30	3 × 35	3 × 39
Required cable size [4)]	mm²	4.0	4.0	4.0	4.0 / 6.0	4.0	4.0	4.0 / 6.0	6.0
VDE approved, CE endorsed / Protection class		• / IP 25	• / IP 25	• / IP 25	• / IP 25	• / IP 25	• / IP 25	• / IP 25	• / IP 25
Features									
Control		hydraulical				electronical			
IES® Bare wire heating system	/ Ω cm [5)]	• / 1300	• / 1300	• / 1300	• / 1300	• / 1300	• / 1300	• / 1300	• / 1300
Partial power switch		2 positions: ECO (66%) – MAX (100%)							
Dimensions and weight									
Dimensions (Height × Width × Depth)	cm	47 × 23.6 × 13				46.6 × 23 × 9.7			
Approx. weight (filled with water)	kg	3.5	3.5	3.5	3.5	3.7	3.7	3.7	3.7

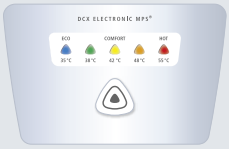
• = included resp. yes 1) Temperature increase e.g. from 12 °C to 40 °C 2) Mixed water 3) Flow limited in order to obtain optimal temperature increase
4) Regulations vary according to the regional power supply authority. Must only be connected by a qualified electrician. 5) Permissible minimum electrical resistance of the water at 15 °C

Closed-outlet installation

Instant water heaters with power ratings from 18 – 27 kW can supply multiple tap outlets with hot water. They have to be installed as closed-outlet systems. Where applicable, follow the separate instructions of the tap manufacturer.



Technical Data

Model		DCX ELECTRONIC MPS®	DEX ELECTRONIC MPS®	DSX SERVOTRONIC MPS®
Product code		34217	34227	34327
Use				
Nominal capacity	litres	0.4	0.4	0.4
For single outlet / For multiple outlets		• / •	• / •	• / •
Application	handwash basin / kitchen sink	• / •	• / •	• / •
	shower / bathtub	• / •	• / •	• / •
Installation type	wall-mounted	•	•	•
Electrical data				
Type	closed-outlet	•	•	•
Maximum static pressure	MPa (bar)	1 (10)	1 (10)	1 (10)
Water connections (thread connection)	wall- and flush-mounted	G ½"	G ½"	G ½"
User set temperature	°C	35, 38, 42, 48, 55	20 to 60	20 to 60
Hot water flow rate at Δt = 28 K [1) 2)]	l/min	9.2 / 10.7 / 12.3 / 13.8 [3)]	9.2 / 10.7 / 12.3 / 13.8 [3)]	9.2 / 10.7 / 12.3 / 13.8 [3)]
Switch-on – maximum flow rate	l/min	2.5–8.0 [4)]	2.5–8.0 [4)]	2.5– automatic
Nominal power rating [5)]	kW	Optionally 18 / 21 / 24 / 27	Optionally 18 / 21 / 24 / 27	Optionally 18 / 21 / 24 / 27
Supply voltage	V	3 / PE ~ 400	3 / PE ~ 400	3 / PE ~ 400
Nominal current	A	3 × 26 / 3 × 30 / 3 × 35 / 3 × 39 [3)]	3 × 26 / 3 × 30 / 3 × 35 / 3 × 39 [3)]	3 × 26 / 3 × 30 / 3 × 35 / 3 × 39 [3)]
Required cable size [5)]	mm^2	4.0 / 6.0 [5)]	4.0 / 6.0 [5)]	4.0 / 6.0 [5)]
VDE approved, CE endorsed / Protection class		• / IP25	• / IP25	• / IP25
Features				
Control		electronical	electronical	fully electronical
IES® Bare wire heating system	/ Ω cm [6)]	• / 1100	• / 1100	• / 1100
Control panel				
Temperature display / operating status indication		5 coloured LEDs / –	LCD / codes	LCD / texts
Temperature-dependent background lighting				•
Touch keys			2	4
Energy monitor / Dynamic flow control				• / •
Twin Temperature Control TTC®		•	•	•
Multiple Power System MPS®		•	•	•
Solar-compatible (Inlet temperature < 70 °C)			•	•
Dimensions and weight				
Dimensions (Height × Width × Depth)	cm	46.6 × 23 × 9.7	46.6 × 23 × 9.7	46.6 × 23 × 9.7
Approx. weight (filled with water)	kg	3.7	3.7	4.2

• = included resp. yes 1) Temperature increase e.g. from 12 °C to 40 °C 2) Mixed water 3) Depending on the selected connection power rating. 4) Flow limited in order to obtain optimal temperature increase
5) Regulations vary according to the regional power supply authority. Must only be connected by a qualified electrician. 6) Permissible minimum electrical resistance of the water at 15 °C

Innovation: one unit for all installations

The DSX, DEX, DCX, CEX and CFX-U instant water heaters are equipped with the unique Multiple Power System MPS®. With this system the maximum power rating can be determined upon installation in accordance with your power supply.

Remote control

The optionally available remote control (Art. no. 34000) allows easy adjustment, even when the DSX und DEX instant water heaters are mounted in bathroom furniture or in the other room.

Solar thermal energy

Technical Data

Solar collectors:
The power house
of a solar system

Solar collectors		SCM 215	SCM 215 BLACK	SCM 215 Q
Product code		50100	50110	50120
Dimensions (H × W × D)	cm	209 × 103 × 8		103 × 209 × 8
Aperture area	m^2	2.15 (1.91)		2.15 (1.91)
Glass structure		3.2 mm Low-iron, structured solar safety glass		3.2 mm Low-iron, structured solar safety glass
Frame		anodized silver	anodized black	anodized black
Weight	kg	32.5		33
Absorber type		Blue highly selective		Blue highly selective
Optical efficiency		80.6 %		82.4 %
Insulation: top / bottom		20 mm Rock wool / 20 mm PIR sandwich insulation		20 mm Rock wool / 20 mm PIR sandwich insulation
Fill volume	litres	1.65		2.3
Heat carrier		Propylene glycol		Propylene glycol
Maximum operating pressure	bar	10		10
Maximum idle temperature	°C	191.2 °C		191.2 °C

Solar controllers:
The control centre of a solar system

Solar controllers	SCR 301 V	SCR 502 V	SCR 603 V
Product code	52003	52005	52006
Application			
Pre-set systems	1	14	40
Inputs / outputs	3 / 1	5 / 2	6 / 3
Speed control / intermittent switching	• / •	• / •	• / •
Temp. monitoring / limiting	• / •	• / •	• / •
Holiday function / frost protection function	• / •	• / •	• / •
Target load function		•	•
Heating return boost		•	•
Solid boiler function		•	•
Freely programmable thermostat			•
Operating data logging (SD card)			•

Pump assemblies:
The motor of a good solar system

Pump assemblies	SPB 20 / 6 o.R.	SPB 20 / 6	SPB 20 / 6 HEP
Product code	52200	52201	52205
Integrated control		•	
Integrated aspirator	•	•	•
Top connection (bottom connection)	¾" AG (¾" IG)	¾" AG (¾" IG)	¾" AG (¾" IG)

Technical Data

Potable water tanks:
The storage centre of a hot water system

Drinking water tanks		S 300-BV	S 400-BV	S 500-BV
Product code		51013	51014	51015
Capacity	litres	300	400	500
Diameter (incl. 5 cm insulation) [1]	cm	60	70	75
Height with insulation (tilt height)	cm	170 (180)	166 (180)	178 (197)
Water capacity heat exchanger top / bottom	litres	5.0 / 7.5	6.3 / 9.4	7.5 / 11.3
Performance index according to DIN 4708 [2] top / bottom (continuous duty [3] top / bottom)		1.8 / 8 (605 / 970)	2.1 / 11 (720 / 1180)	2.5 / 14 (830 / 1400)
max. T / max. P TW (max. T / max. P heating [4])		95 °C / 10 bar (160 °C / 25 bar)	95 °C / 10 bar (160 °C / 25 bar)	95 °C / 10 bar (160 °C / 25 bar)
Cold / hot water assembly		2× G 1"	2× G 1"	2× G 1"
Heat exchanger and circulation assembly		5× G ¾"	5× G ¾"	5× G ¾"
Electric heating female thread		1× G 1½"	1× G 1½"	1× G 1½"
Sensor connections / thermometer / inspection flange		Sensor sleeve 9 mm / supplied thermometer / nominal width = DN110		

Buffer tanks:
The storage centre of a back-up solar system

Buffer tanks		SFW 800	SFW 1000	SFW 1500
Product code		5200-51051	5200-51052	5200-51052
Capacity	litres	800	1000	1500
Diameter incl. 10 cm insulation	cm	99	99	120
Height with insulation (tilt height)	cm	180 (178)	220 (218)	213 (215)
Heating area	m^2	2.5	3.2	4.25
Water capacity WT	litres	15.7	20.1	26.7
max. T / max. P storage tank (plain tube heat exch.)		95 °C / 3 bar (110 °C / 16 bar)	95 °C / 3 bar (110 °C / 16 bar)	95 °C / 3 bar (110 °C / 16 bar)
Heat exchanger		2× G 1"	2× G 1"	2× G 1"
Loading / Unloading / Electric heating connections	inches	9× Rp 1 ½	9× Rp 1 ½	9× Rp 1 ½
Sensor / controller connections		For all storage tanks: Sensor terminal strip		

Fresh water stations:
The hygienic way to heat water by solar energy

Fresh water station		FWX SOLARTRONIC®	FWX
Product code		5100-51095	5100-51090
Examples of hot water flow rate / power		12 l/min at 29 kW or 20 l/min at 48 kW	
Temperature supply water / point of use	°C	55 / 45 or 65 / 45	

1) Insulation not removable 2) To reach the stated performance index the boiler duty must be greater than the stated continuous duty. 3) Continuous duty at (10° / 80° / 45°) in L / h
4) Heat exchanger operating medium only water in the liquid state

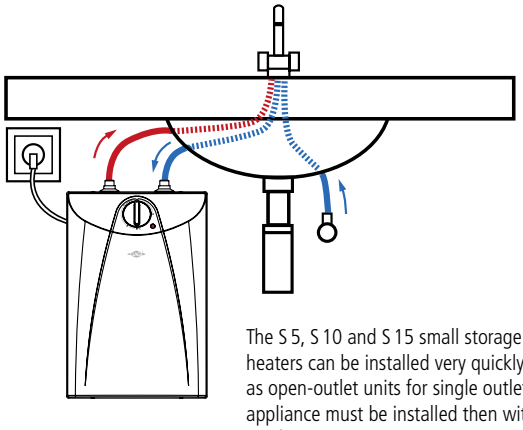
Small electric storage water heaters 5 – 15 litres

Technical Data

Model		S 5-O	S 5-U	S 10-O	S 10-U	S 15-O	S 15-U
Product code		41052	42052	41102	42102	41152	42152
Use							
Capacity	litres	5	5	10	10	15	15
For single outlet / For two outlets		• / –	• / –	• / •	• / •	• / •	• / •
Application	handwash basin / kitchen sink / shower	• / • / –	• / • / –	– / • / –	• / • / –	– / • / •	• / • / –
Installation type	undersink unit		•		•		•
	oversink unit	•		•		•	
Electrical data							
Type		open-outlet	open-outlet	closed-outlet [1]		closed-outlet [1]	
Maximum static pressure	MPa (bar)			0.8 (8)	0.8 (8)	0.8 (8)	0.8 (8)
Water connections (thread connection)		G ½"	G ⅜"	G ½"	G ⅜"	G ½"	G ⅜"
User temperature adjustment	°C	approx. 35 – 85		approx. 35 – 80		40 / 55 / 70 / 90	
Approx. amount of mixed water 40 °C [2]	litres	10	10	20	20	30	30
Nominal power rating	kW	2.0	2.0	2.2	2.2	2.2	2.2
Supply voltage	V	1/N/PE ~ 230		1/N/PE ~ 230		1/N/PE ~ 230	
Heat-up time Δt = 45 K [3]	min	8	8	14	14	22	22
Standby power consumption at 65 °C	kWh/24h	0.27	0.27	0.30	0.34	0.49	0.49
VDE approved, CE endorsed / Protection class		• / IP 24	• / IP 24	• / IP 24	• / IP 24	• / IP 24	• / IP 24
Features							
Temperature display / Operating indicator light		– / •	– / •	– / •	– / •	• / •	• / •
Temperature limit selectable to …	°C	38 / 55 / 65	38 / 55 / 65	50 / 65	50 / 65		
Inner container		Polypropylene	Polypropylene	Copper	Copper	Copper	Copper
Extra button for a single heating process						•	•
Power cable with plug		•	•	•	•	•	•
Dimensions and weight							
Dimensions (Height × Width × Depth)	cm	38 × 26 × 23		45 × 30 × 29		45 × 30 × 29	
Approx. weight (filled with water)	kg	7.2	7.2	16.5	16.5	22.5	22.5

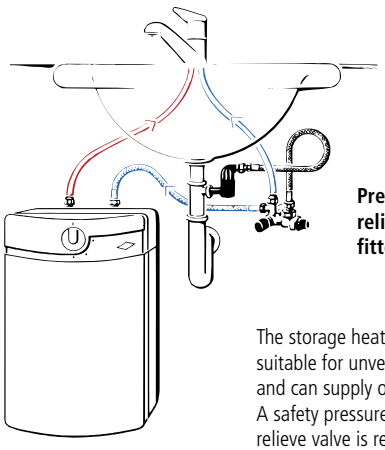
• = included resp. yes 1) Installation also possible with open-outlet tap. 2) At an inlet temperature of e.g. 15 °C 3) Temperature increase e.g. from 15 °C to 60 °C

Open-outlet installation for single outlet (5-, 10- or 15-litres models)



The S 5, S 10 and S 15 small storage water heaters can be installed very quickly and easily as open-outlet units for single outlets. The appliance must be installed then with a special tap for open-outlet storage water heaters.

Closed-outlet installation (10- or 15-litres models)



Pressure and temperature relieve valve must be fitted!

The storage heaters S 10 / S 15 are suitable for unvented installation and can supply one or more outlets. A safety pressure and temperature relieve valve is required for unvented installation.

Large storage water heaters 30 – 120 litres

Technical Data

Model		S 30	S 50	S 80	S 100	SX 50	SX 80	SX 100	SX 120
Product code		43800	43801	43802	43807	43050	43080	43100	43120
Use									
Capacity	litres	30	50	80	100	50	80	100	120
For single outlet / For multiple outlets		• / •	• / •	• / •	• / •	• / •	• / •	• / •	• / •
Application	shower	•	•	•	•	•	•	•	•
	home supply / bathtub			•	•		•	•	•
Installation type	wall-mounted	•	•	•	•	•	•	•	•
Electrical data									
Type	closed-outlet	• [1]	• [1]	• [1]	• [1]	•	•	•	•
Maximum static pressure	MPa (bar)	0.6 (6)	0.6 (6)	0.6 (6)	0.6 (6)	0.6 (6)	0.6 (6)	0.6 (6)	0.6 (6)
Water connections (thread connection)		G ½"	G ½"	G ½"	G ½"	G ½"	G ½"	G ½"	G ½"
User temperature adjustment	°C	≤ 65	≤ 75	≤ 75	≤ 75	40 / 60 / 85		40 / 60 / 85	
Approx. amount of mixed water 40 °C at 65 °C	litres	48	80	128	160	85	142	176	217
Nominal power rating	kW	2.0	2.0	2.0	2.0	0.75 / 4.5	1.0 / 6.0	1.0 / 6.0	2.0 / 6.0
Supply voltage	V	1 / N / PE ~ 230				3 / N / PE ~ 400 – 1 / N / PE ~ 230 – 2 / N / PE ~ 400 [4]			
Heat-up time Δt = 45 K [2]	min	50	90	140	180	37 – 220 [3]	44 – 264 [3]	55 – 330 [3]	66 – 198 [3]
Standby power consumption at 65 °C	kWh / 24h	0.69	0.80	0.98	1.18	0.59	0.82	0.99	1.14
CE endorsed / Protection class		• / IP 25	• / IP 25	• / IP 25	• / IP 25	• / IP 24	• / IP 24	• / IP 24	• / IP 24
Features									
Electronic temperature control						•	•	•	•
Temperature display			•	•	•				
Operating indicator light		•	•	•	•	•	•	•	•
Control panel						•	•	•	•
Thermal capacity display						•	•	•	•
Inner container		Glass lined steel				Titanium glass lined steel			
Fast heating button						•	•	•	•
Single-circuit operation / Dual-circuit operation		• / –	• / –	• / –	• / –	• / •	• / •	• / •	• / •
Power cable with plug		•	•	•	•	Permanent connection		Permanent connection	
Dimensions and weight									
Dimensions: Height	cm	56	58	81	96	61	84	99	115
Dimensions: Width	cm	38	49	49	49	53	53	53	53
Dimensions: Depth	cm	37	50	50	50	52	52	52	52
Approx. weight (filled with water)	kg	44	70	105	129	71	106	133	162

• = included resp. yes 1) This storage heater is also suitable for vented installation. 2) Temperature increase e.g. from 15 °C to 60 °C 3) Heat-up time at "max." resp. "min." power
4) Regulations vary according to the regional power supply authority. Must only be connected by a qualified electrician.

Safety accessories (not supplied)

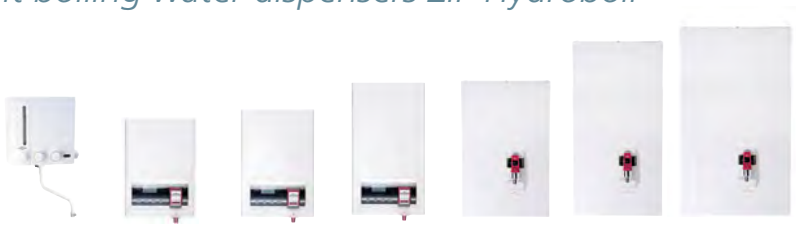
SGU
Undersink safety kit
Art. no.: 40013

SGM
Oversink safety kit with pressure-reducing valve
Art. no.: 40012

SG
Oversink safety kit
Art. no.: 40011

Wall kettle & Instant boiling water dispensers ZIP Hydroboil®

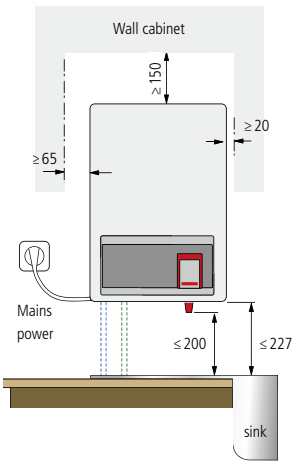
Technical Data



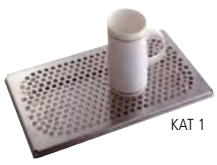
Model		K 5	HBE 6-003	HBE 6-005	HBE 6-007	KA 15	KA 25	KA 40
Product code	Case: white	41002	44403	44405	44407	44015	44025	44040
	Case: stainless steel		44413	44415	44417	44315	44325	44340
Use								
Application	domestic / commercial	• / •	– / •	– / •	– / •	– / •	– / •	– / •
Installation type	wall-mounted unit	•	•	•	•	•	•	•
Electrical data								
Water connections (thread connection)		G ½"	G ½"	G ½"	G ½"	G ½"	G ½"	G ½"
User temperature adjustment	°C	37 – 99	65 – 100	65 – 100	65 – 100	–	–	–
Capacity / Delivery at any one time	litres / cups [1]	≤ 5 / 30	3 / 18	5 / 30	7.5 / 45	15 / 100	25 / 150	40 / 240
Recovery	cups [1] / hour		100	140	140	140	210	360
Recovery time	cups [1] / minute		1.5	2.5	2.5	2.5	3.0	6.0
Heat-up time when filled to capacity [2]	min	14.5	17	17	24	40	50	60
Standby power consumption	kWh / 24h		1.1 [3]	1.2 [3]	1.3 [3]	2.8	3.1	3.3
Nominal power rating	kW	2.0	1.4	2.2	2.2	2.4	3.6	2 × 3.0
Supply voltage	1 / N / PE ~ 230 V	•	•	•	•	•	•	•
VDE approved, CE endorsed / Protection class		• / IP 44	• / IP 20	• / IP 20	• / IP 20	– / IP 20	– / IP 20	– / IP 20
Features								
Control display / Operating status indication		• / –	• / •	• / •	• / •	• / –	• / –	• / –
Display type			LCD	LCD	LCD			
Energy-saving facility / child safety lock			• / •	• / •	• / •			
Boiling chamber		Polypropylene	Stainless steel			Stainless steel		
Twin chamber system technology			•	•	•	•	•	•
Power cable with plug		•	•	•	•	•	•	•
Dimensions and weight								
Dimensions: Height	cm	27	43	47	58	60	78	84
Dimensions: Width	cm	29	29	32	32	39	39	52
Dimensions: Depth	cm	17	18	20	20	30	30	29
Length of swivel spout	cm	20						
Approx. weight (filled with water)	kg	7.6	12.5	16.5	20.5	34.5	47.0	71.0

• = included resp. yes 1) Standard cup size 167 ml 2) At 10 °C inlet temperature 3) Possible reduction of up to 29 % by activating the energy saving mode

Installation (dimensions in mm)



Accessories


KAT 1

Additional tap

Instant boiling water dispenser HBE 6..KA 40

Stainless steel drip tray KAT 1 (325 x 175 mm), Prod. code 44080

Stainless steel drip tray KAT 2 (325 x 175 mm) with drain, Prod. code 44081

Instant boiling water dispenser KA 15..40

Extra tap Kits (tap extension pipework) for KA 15 / KA 25 Prod. code 84426

Extra tap Kits (tap extension pipework) for KA 40, Prod. code 84427

Additional tap for KA 15..40 Prod. code 84425

ESO 6 Ion exchanger

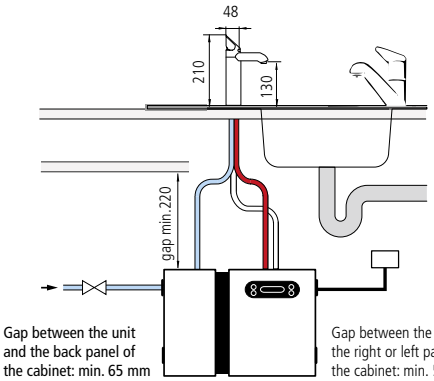
ESO ion exchangers combine water softening and filtration with pH regulation. Consequently, this offers an economic, compact and reliable method of reducing water hardness. It is installed in the supply line upstream of the boiling water heaters.
Prod. code 84493

Technical Data

Model		HT 60	B 100 F	BC 100 / 125	BC 150 / 175
Product code		44601	44201	44271	44281
Use					
Application	domestic / commercial	• / –	• / •	• / •	– / •
Installation type	undersink unit	•	•	•	•
	with electronic tap	•	•	•	•
Electrical data					
Water connections (thread connection)		G ½"	G ½"	G ½"	G ½"
Temperature setting boiling water / chilled water	°C	98 / –	65 – 100 / –	65 – 100 / 4 – 10	65 – 100 / 4 – 10
Boiling/chilled water capacity	litres	1.5 / –	3.0 / –	3.0 / 3.5	5.0 / 6.5
Recovery boiled water	cups (167 ml) / hour	60	100	100	150
Recovery chilled water	glasses (200 ml) / hour			125	175
Recovery time	cups [1] / minute	1.5	1.5	1.5	2.0
Standby power consumption	kWh / 24h	0.56	0.63	0.93	1.44
Nominal power rating	kW	1.5	1.5	1.5	2.0
Supply voltage	V	1 / N / PE ~ 230	1 / N / PE ~ 230	1 / N / PE ~ 230	1 / N / PE ~ 230
VDE approved, CE endorsed / Protection class		• / IP 20	• / IP 20	• / IP 20	• / IP 20
Features					
Timer			•	•	•
Control display / Operating status indication		• / –	• / •	• / •	• / •
Display type			LCD	LCD	LCD
Energy-saving facility / child safety lock		– / •	• / •	• / •	• / •
Stainless steel boiling chamber		•	•	•	•
Leak detection system		•	•	•	•
Drinking water filter			•	•	•
Exhaust air fan					•
Power cable with plug		•	•	•	•
Dimensions and weight					
Dimensions (Height × Width × Depth [2])	cm	34 × 19 × 32	36 × 29 × 32	34 × 44 × 43	40 × 50 × 47
Approx. weight (filled with water)	kg	13	15	41	47

• = included resp. yes 1) Standard cup size 167 ml 2) Plus 65 mm space required for water and electrical connections

Installation (dimensions in mm)



Gap between the unit and the back panel of the cabinet: min. 65 mm

Gap between the unit and the right or left panel of the cabinet: min. 50 mm

Drinking water filter

Types B 100 F and BC.. are fitted with an integral triple-action, submicron filter cartridge that filters out contaminants < 5 µm, improves the taste of the water and reduces limescale.

KXT 2 stainless steel tap font

The optional stainless steel tap font with drain connection enables the tap to be installed on virtually any work top away from the sink.

Prod. code 44101

Guidelines for usage of hot water

Application	Required temperature	Required flow	Required volume per usage
Handwashing	35–38 °C	2*–4 l/min	0.5–1 l
Kitchen sink	45–55 °C	3*–5 l/min	3–8 l
Shower	37–40 °C	4*–8 l/min	15–30 l
Cleaning	45–55 °C	4–6 l/min	5–10 l
Bath	37–40 °C	8–10 l/min	100–150 l

* tap nozzles or special shower heads recommended for satisfactory flow results

Power conversion table

220V	230V	240V	380V	400V	415V
3.2 kW	3.5 kW	3.8 kW	12.2 kW	13.5 kW	14.5 kW
4.0 kW	4.4 kW	4.8 kW	16.2 kW	18.0 kW	19.4 kW
5.2 kW	5.7 kW	6.2 kW	19.0 kW	21.0 kW	22.6 kW
6.0 kW	6.6 kW	7.2 kW	21.6 kW	24.0 kW	25.8 kW
8.0 kW	8.8 kW	9.6 kW	24.4 kW	27.0 kW	29.0 kW

Instantaneous performance calculations

$$\text{Temperature rise [°C]} = \frac{\text{Nominal power rating [kW]} \times 14.3}{\text{Flow per minute [litres]}}$$

$$\text{Temperature rise [°F]} = \frac{\text{Nominal power rating [kW]} \times 5.7}{\text{Flow per minute [gallons]}}$$

$$\text{Flow per minute [litres]} = \frac{\text{Nominal power rating [kW]} \times 14.3}{\text{Temperature rise [°C]}}$$

$$\text{Flow per minute [gallons]} = \frac{\text{Nominal power rating [kW]} \times 5.7}{\text{Temperature rise [°F]}}$$

Useful formulae

Time and rating calculations (excluding heat losses)

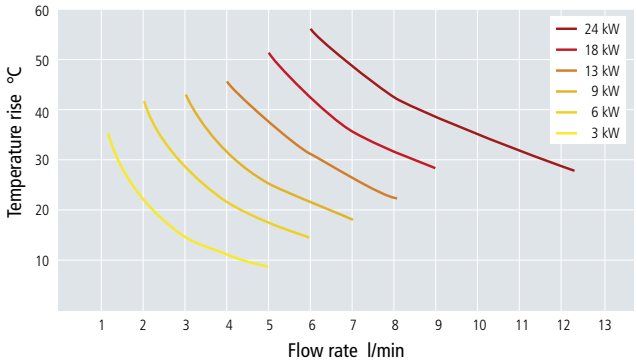
$$\text{Time to heat water [minutes]} = \frac{\text{Litres} \times \text{Temperature rise [°C]}}{\text{Nominal power rating [kW]} \times 14.3}$$

$$= \frac{\text{Gallons} \times \text{Temperature rise [°F]}}{\text{Nominal power rating [kW]} \times 5.7}$$

$$\text{Nominal power rating required to heat water [kW]} = \frac{\text{Litres} \times \text{Temperature rise [°C]}}{\text{Time [minutes]} \times 14.3}$$

$$= \frac{\text{Gallons} \times \text{Temperature rise [°F]}}{\text{Time [minutes]} \times 5.7}$$

Instantaneous performance chart



Mean temperature of mixed water

$$\text{Mean temperature} = \frac{(\text{Hot water [litres]} \times \text{Hot water temp. [°C]}) + (\text{Cold water [litres]} \times \text{Cold water temp. [°C]})}{\text{Hot water [litres]} + \text{Cold water [litres]}}$$

$$= \frac{(\text{Hot water [gallons]} \times \text{Hot water temp. [°C]}) + (\text{Cold water [gallons]} \times \text{Cold water temp. [°C]})}{\text{Hot water [gallons]} + \text{Cold water [gallons]}}$$

Physical constants	
Temperature conversion	
Temperature [°C] =	(Temperature [°F] – 32) ÷ 1.8
Temperature [°F] =	Temperature [°C] × 1.8 + 32
Volume conversion	
1 litre =	0.22 Gallon (GB)
	0.27 Gallon (US)
1 gallon (GB) =	4.54 Litres
1 gallon (US) =	3.78 Litres
Pressure conversion	
1 bar =	0.1 MPa
=	14.5 psi
=	100 kN / m²
1 ft head of water =	0.434 psi
1 m head of water =	9.8 kN / m²

Site requirements

Observe the statutory regulations of the respective country, as well as those of the local electricity and water supply companies. The installation site must be free from frost at all times. In order to avoid thermal losses the distance between the heater and the water draw-off point should be as small as possible (< 2m). Best performance is guaranteed at a flow pressure of ≥ 2 bar / 30 psi, avoiding static pressures exceeding 6 bar / 90 psi. Material of water pipes: cold water: steel or copper, hot water: copper. Instant water heaters must be permanently connected to the electricity supply via a double pole isolating switch with a minimum contact gap of 3mm in both poles. The switch must be readily accessible but out of reach of a person using a fixed bath or shower, except for the cord of a pull cord operated switch. The wiring must be connected to the switch without the use of a plug or socket outlet. The supply cable selected for installation must conform to the relevant table in the current I.E.C. regulations. Electrical water heaters must be connected to the protective earth conductor! In the interest of electrical safety a 30mA ELCB (Earth Leakage Circuit Breaker) should be installed in all instant water heater circuits. An isolation valve must be fitted in a convenient position in the supply pipe to allow the water heater to be serviced.

Explanation of symbols

Product innovations

The Integrated Electrical Security IES® system is an innovative heating system incorporated into most instantaneous water heaters from CLAGE. The bare wire heating technology uses stainless steel elements directly immersed in the heat exchanger channels. This system achieves maximum efficiency by means of direct contact with water flow plus the fastest possible heat up times, typically less than 2 seconds. However, the system's bare wires require a certain conductance in the water so that they can be used.

The Multiple Power System MPS® allows the installing electrician to determine the maximum power setting for an electronic instantaneous water heater during installation. It is possible to set the power output on-site according to the conditions that exist at the place of installation. That makes installation easier and allows specialist retail traders to keep down stock levels.

TWIN TEMPERATURE CONTROL TTC® ensures temperature control to the precise degree thanks to two temperature sensors. As a consequence, electronic instantaneous water heaters equipped with TTC® deliver consistent outlet temperatures at precisely the desired temperature set (even when the water pressure fluctuates).

The load shedding circuit (also: priority circuit) facilitates the joint use of two 400 V appliances connected to a single electrical connection. That means, for example, that an instantaneous water heater can be operated from the existing cooker connection. When dispensing hot water the instantaneous water heater briefly turns off the cooker. However, this is practically unnoticeable in general use, because the cooker easily retains the heat required for cooking or baking during the time it takes to draw off the hot water.

The electronically controlled instantaneous water heaters DSX, DEX, CEX-U, CEX 9, CFX-U and MDX are suitable for installing in solar energy systems. They can be used as decentralised auxiliary heaters to heat up the water close to where the water is drawn off. This solution avoids the waste of energy that inevitably results from heating water at a central point. In making up the temperature difference solar-system suitable appliances heat only the water actually used to the desired temperature. The water heating process can be completely separated from the central heating.

High-quality solar thermal products are awarded the European SOLAR KEYMARK certificate of quality. That means: reliable quality and reliable information about performance ratings. Since 2009 the Solar Keymark certification mark is a precondition for receiving grants for solar collectors through the BAFA (German Federal Office of Economics and Export Control) or the KfW bank.

This logo is affixed to all CLAGE instantaneous water heaters that are particularly efficient with regard to their consumption of power and water, and as such are particularly energy-efficient and environmentally friendly. Saving energy and protecting the climate are quite rightly highly topical issues. As a consequence, consumers are increasingly looking for convenient ways to save energy in the interests of protecting the climate.

Copper is a very valuable material for water installations. Hot water storage heaters whose internal containers are made of copper are corrosion resistant and, as a result, maintenance-free and long lasting.

Application

Handwash basin, shower, bathtub, kitchen sink

Boiling water, chilled water

…the innovative hot water solution.

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